ILLICIT DRUG USE : PATTERNS, PROBLEMS, AND PREDICTORS OF CHANGE.

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I dedicate this work to my recently deceased father, to my husband, Dave, and to our forthcoming child.

Declaration :

I declare that this thesis has been composed wholly by myself and that the work described within was conducted by myself, or under my management, with the support of the grant holders and funding body.

ABSTRACT

This thesis describes the results of a longitudinal study of regular illicit drug users in Edinburgh, Scotland.

Subjects were recruited using the method of "snowballing". An initial group of 115 regular users of illicit substances was interviewed using a semi-structured schedule. It was found that multiple substance use was the norm with many individuals reporting adverse consequences resulting from their use of licit and illicit drugs. Concern about HIV infection affected the drug taking behaviour of injectors, but in contrast, had little influence upon the sexual behaviour of both injectors and non-injectors.

Sixty-three percent (n = 72) of respondents were reinterviewed approximately 18 months after the initial interview, in order to assess patterns of behaviour change. It was hypothesised that level of involvement in drug-using lifestyles at first interview and respondents' cognitions about their current and future use would be predictive of behaviour change at the time of follow-up.

Drug involvement variables, such as length of drug using career, opiate use and having an income from drug dealing, discriminated significantly between users who "reduced" in terms of the nature and level of their use, and those who "progressed" or remained "static".
Cognitions about use, such as perceptions of being addicted and desire to stop, discriminated "statics" from the "reducers" and "progressors".

Results from this study show that drug use behaviour change has multiple predictors at personal, social and environmental levels. These predictors are as varied and complex as those of drug initiation suggested in the retrospective data. Further studies of predictors of change should facilitate the identification of those new users who are "at risk" of progression, which would have important implications for both primary and secondary prevention.

CONTENTS

CHAPTER TWO
UNDERSTANDING ILLICIT DRUG USE : A REVIEW

CHAPTER THREE RESEARCH AIMS, DESIGN AND METHODS

CHAPTER FOUR DRUG USE AT WAVE ONE

CHAPTER FIVE : THE FOLLOW-UP STUDY AND CHANGING PATTERNS OF DRUG USE

CHAPTER SIX : KEY FINDINGS FROM A PROSPECTIVE STUDY

List of Tables

List of Figures

CHAPTER ONE : INTRODUCTION

Edinburgh, the capital city of Scotland, which has a population of approximately half a million, was the location of the study upon which this thesis is based. In the years preceding this study Edinburgh had received a lot of mass media attention as a result of a heroin " epidemic " which first came to attention in the early 1980's (e.g Haw, 1985; Robertson and Bucknall, 1986). It was considered important therefore to investigate drug use in Edinburgh and to attempt to understand the nature and meaning of such use to those involved. The highly publicised heroin use was thought to be just the tip of the drug using iceberg. The identification of the Human Immunodeficiency Virus (HIV) in the early 1980's had also led to a lot of attention being focussed upon illicit drug users, primarily, at least initially, upon those who injected. This potentially fatal virus was predicted to spread throughout the drug injecting community as a result of needle sharing practices, and the urgent need for behaviour modification was acknowledged. Therefore, this study set out not only to examine the nature and patterns of drug use at an individual level and the changes in drug use over time, but to monitor whether HIV was impacting upon the lives of those who chose to inject drugs. It was not intended to be a study of first ever illicit drug initiation, eligibility for entry to the study being current regular use of at least one illicit drug.

The title of this thesis calls for further clarification. Firstly, " change " could refer to historical changes in prevalence, in style of use, in substance use, or a combination of all these. Alternatively, it could refer to changes at an individual level in that an individual may alter the frequency of his/her illicit drug use, the mode of such use, and the substances used, over a period of time commonly referred to as the " drug using career ". The latter interpretation of " change " was the focus of this four year longitudinal study which conducted two interviews,

eighteen months apart in order that drug " careers " could be monitored (see Chapters 4 and 5).

This thesis is therefore primarily concerned with changes at an individual level in that the nature of illicit drug use amongst individuals will be described. The individuals studied were contacted and interviewed by means of the non-random technique of " snowballing " (see Chapters 2 and 3). The study investigated the nature of drug use and its accompanying lifestyle, both at the level of the individual and at the level of any identifiable drug using social network. Furthermore it acknowledged the diversity of substances which could be used, the varying frequencies and modes of use, and the heterogeneity of those who used them. The study therefore did not concern itself solely with individuals identified as drug " dependent ", but set out to identify and interview users of any illicit substance, regardless of whether they had been formally identified as dependent on drugs.

1.1 What are Illicit Drugs?

The term illicit has been introduced into the drug literature as a means of broadening the focus of studies of drug use to include substances which are legal when used in a prescribed manner, but break the boundaries of legality when used in a manner discordant with their design or purpose. A prime example of a substance used in a non-intended manner is that of solvents such as glue or other volatile substances such as butane gas or lighter fuel; these were designed with a specific purpose or purposes in mind which did not include inhalation of fumes for the purposes of achieving an altered state of consciousness. A further example, which is discussed at length throughout this thesis is that of the illicit use of benzodiazepines and barbiturates; these were designed as minor and major tranquillisers for the controlled treatment of anxiety states, depression, sleeplessness and other psychological disorders , but not for self administration by injecting or swallowing in order to achieve an altered state of consciousness.

The benzodiazepines and barbiturates are controlled under the Medicines Act of 1968, and should only be received on issue of a prescription from a licence holder such as a family doctor or dentist and should be used in accordance with prescription instructions.

Thus many drug studies examine the illicit use of certain substances in addition to those defined as illegal. The Medicines Act (1968), in conjunction with the Misuse of Drugs Act (1971), and later additions and amendments to both, provide the basis from which to identify illicit and illegal drug use . (These legislation however do not include the illicit use of volatile solvents and gases, which are considered in this study).

1.1.1. Misuse of Drugs Act (1971) and modifications.

The Misuse of Drugs Act forms the basis of the United Kingdom's drug control laws. Passed by Parliament on the 27th May 1971, the Act provides classification of proscribed substances by allocating specific substances and substance groups to one of three categories (see Figure 1.1). It details legislation regarding import and export, production and supply, possession, and cultivation of controlled drugs, it prohibits specific activities relating to opium, and grants the Secretary of State specific powers including the direction of prescribing practice. The Act also made it an offence for owners or managers of premises to knowingly permit the production, supply or use of controlled drugs within his/her premises. Finally, the Act accorded law enforcement agents the powers to search and obtain evidence from persons suspected of committing an offence under the various sections outlined above. It also set out the maximum sentences and punishments an individual could receive on conviction of an offence relating to the use of a controlled drug. (See Appendix Two, Table A).

Figure 1.1 Misuse of Drugs Act (1971)

CLASS A Heroin, cocaine, morphine, methadone , LSD, mescaline and psilocybin, opium and any derivative (e.g. Dipipanone and pethidine), injectable amphetamines, MDMA, and cannabinol (unless cannabis or cannabis resin).

CLASS B Amphetamines (Methedrine, Benzedrine, Drinamyl, Dexedrine), cannabis and cannabis resin, codeine, pholcodine.

CLASS C Mandrax (methaqualone), lesser, oral preparation amphetamines (e.g. bezphetamine, chlorphentermine, mephentermine and 6 others).

Main amendments and additions

1977 - Cannabis redefined as the whole plant
1979 - `Angel dust' (PCP) became a Class A drug
1985 - Barbiturates were made a controlled drug for the first time, Class B. Methaqualone moved from Class C to Class B.

The main provisions of the Act came into operation on the 1st July 1973, and since that date it has been subject to a variety of recommendations and subsequent amendments, the main ones being described above.

This study focuses on the use of both illicit and illegal drugs, the reason being that it is concerned with the use of psychoactive substances. " Psychoactive " is a term used to describe any substance which alters an individual's mental state, thus alcohol, tobacco and caffeine are also included in this definition. Alcohol and tobacco use are discussed in this thesis but caffeine intake is not, primarily because caffeine is not restricted in its use to certain age groups and thus is not used illegally, nor is it used in a manner other than intended, i.e., illicitly.

1.2 Definitions of Use

There was a tendency in much of the early drug use literature to imply that all drug use was abuse, regardless of the extent to which substances were used. This is partly because the bulk of the early literature drew its conclusions from studies of incarcerated people or individuals undergoing treatment for drug dependence, since it was considered too difficult to locate recreational or non-dependent drug users, although there are some exceptions to this bias (e.g. Catton & Shain, 1976) In the absence of community studies our information about opiate use has tended to come from users who represent the most extreme end of the using spectrum.

As a result there is an absence of consistent definitions of what constitutes use, abuse and misuse. These labels, if we are to benefit from their use, should carry with them some indication of the level and nature of substance use. However, the classification is usually made on the basis of frequency of consumption, usually in days per year or in the previous month. Cut-off points vary enormously, creating the situation whereby an individual using cannabis on six occasions in the preceding year has been classified as a "light" user in one study (e.g. Sapol and Rothman, 1969; Barron et al. 1970), and as a "heavy" user in another (e.g. Postel, 1968)! These inconsistencies in definition make any comparisons between studies very difficult.

Furthermore, many studies "lumped" all drugs together as if they had the same pharmacology and thus the effects of one drug, such as cannabis, were equally as "bad" or "addictive" as another, for example, heroin. The concept of "controlled" use was regarded as inapplicable to opiates such as heroin, where the likelihood of addiction following even one intake of this drug was considered unavoidable (e.g. Blumer et al., 1967).

Studies of a more recent nature tend to differentiate between substances and also between different frequencies and styles of use. Words such as "occasional", "regular", "heavy", "experimental", "recreational", "casual", "addicted", "abuser",

"problem drug user", and many more, can be found in the literature, each one implying some degree of frequency of use, but each one also subject to variation between studies.

In this thesis, the term drug "user" is employed, since this avoids any immediate implication of misuse. A continuum of use is described i.e from occasional to regular using a "days in previous year" calculation.

" Drug misuse " has been defined by the Royal College of Psychiatrists (1987) as:

" Any taking of a drug which harms or threatens to harm the physical or mental health or social well-being of an individual, of other individuals, or of society at large, or which is illegal." (p 30).

This definition is sufficiently wide to include the use of both illegal and legal drugs and prescribed substances. It also moves beyond a definition based solely on frequency of use and the presence or absence of dependence.

1.3 Drug use in the United Kingdom: a Brief Historical Overview

1.3.1 Changes in legislation

In 1924 the Rolleston Committee was set up to examine the problem of increasing drug dependence; at this time the popular drugs of misuse were opium and cocaine and those who used these substances were viewed as "sick" and as such in need of medical treatment. This Committee produced its report in 1926 which led to the establishment of what came to be described as the "British System". This British System, in acknowledging drug dependents as sick, created a system whereby addicts could receive treatment in the form of a regular and controlled prescription of heroin. Initially the fear of the medical profession that they would be inundated by people in search of a heroin prescription proved unfounded; and the new system dealt primarily with professional addicts, i.e. doctors, nurses and other medical staff who had access to these substances in the course of their work. In fact, the number of such persons treated under this system declined between 1935 and 1955 from 700 to less than 400 (Spear, 1969).

However this decline was shortlived. The late 1950's and early 1960's witnessed an upturn in the numbers using mind-altering substances, including at this time the emergence of cannabis use amongst a generally younger population than the earlier opium, morphine and heroin users (Stimson, 1973).

In 1958, a new body, the Brain Committee, was convened to review this situation. This reported in 1961 and, in the light of almost simultaneous contradictory evidence from the Home Office, was judged to underestimate the extent of the British "drug problem", specifically that of heroin abuse. The Brain Committee reconvened to reconsider its initial conclusions. While this committee was taking stock of the situation, several additional pieces of legislation were produced. Firstly, in 1961 the Single Convention was ratified by Britain, binding consenting nations to an international treaty which controlled the use of a wide range of psychoactive drugs, including opiates and cannabis. The second piece of legislation appeared in 1964 and gave police greater powers of control in terms of searching individuals under reasonable suspicion of abuse of illegal and controlled substances to which was added LSD, mescaline and DMT (1966), (Dangerous Drugs (Prevention and Misuse) Act, 1964). These controversial powers awarded to the police were ratified and extended in the Dangerous Drugs (No. 2) Regulations (1964) and the further Dangerous Drugs Act of 1965. These later Acts increased the number of substances covered under the Single Convention, by adding raw opium, poppy straw, coca leaves and cannabis, to the prior regulations regarding the derivatives of the above.

During this period heroin prevalence was reported to be steadily rising, attributed often to over-prescribing on the part of licensed general practitioners (Spear, 1969). The second Brain Report of 1965 therefore recommended that the legitimate supply of heroin from general practitioners, should be curtailed. This recommendation was put into practice with the drawing up of the 1967 Dangerous Drugs Act. This legislation was instrumental in moving the control of heroin

treatment into the hands of doctors working in a few specified clinics, which opened in 1968. In 1968, the Dangerous Drugs (Notification of Addicts) Regulations obliged doctors to notify the Home Office of any person receiving treatment for drug dependence.

Prior to the introduction of these regulations, it had not been obligatory for doctors carrying out treatment of dependent patients to notify their dependence. Therefore, until 1968 the Home Office had derived its " addict statistics " mainly from pharmacists' records, thus excluding non-current users, those in prison or more importantly perhaps, those who obtained their drugs entirely from illicit sources, i.e. the black market.

In relation to known heroin addicts, Spear (1969) reports that in 1965 there were recorded 521 individual cases and by 1967 a dramatic increase occurred when there were 1299 known cases.

Stimson and Oppenheimer (1982) carried out a prospective study of 111 heroin addicts who attended a London Clinic at the start of the new `treatment era' in 1968. Approximately 600 doctors were initially licensed to prescribe heroin and cocaine by April 1968 and later that year there were 15 clinics providing such treatment in London and 24 elsewhere in England and Wales. By October 1968 a total of 1139 patients were attending clinics; almost 80 per cent being London-based. It became apparent that addicts received smaller prescriptions from the clinics than they had from private general practitioners, that the black market availability of heroin decreased , and that even some relatively recent heroin users sought a prescription at a clinic due to low availability on the streets. Many of the clinic prescribers were faced with woeful tales of withdrawals, of extreme addiction etc, and many were reportedly unsure as to how best to determine the presence or absence of dependence. Others prescribed inappropriately low doses because they simply could not believe the amounts some individuals reported to be using (Stimson and Oppenheimer 1982).

There was an inadequate number of these special clinics to deal with the increasing number of drug addicts. Therefore private doctors often took drug addicts onto their lists furtively and continued to prescribe heroin. Cocaine was also frequently prescribed to heroin addicts, by doctors who reportedly (Spear, 1969) believed that, in part, cocaine would stimulate addicts sufficiently to enable them to work.

The clinic system undoubtedly stabilized the lives of many addicts of the 1960's by controlling both the type and amount of drugs used, however for others the clinics removed the excitement from drug using and introduced too many restraints and controls (Stimson and Oppenheimer 1982).

Furthermore the reduction in the black market of heroin and cocaine, due to tighter controls on the prescribing of these substances, had reportedly led to the situation where substitution occurred; for example there was an increased reporting of barbiturate use, and of deaths due to impure street heroin being imported (Ghodse et al. 1985, Bucknall and Robertson 1985).

In spite of such problems, Clinic populations rose steadily over the first ten years of their existence from 1139 in 1968 to 1491 in 1978 (Central Office of Information 1979, Johnson 1975; ISDD Preventive Treatment of Drug Misuse in Britain). This could be due in part, to the Clinics learning over time, how best to assess addicts' legitimate needs, and hence, prescribing amounts stabilized.

1.3.2. Notification of drug addicts

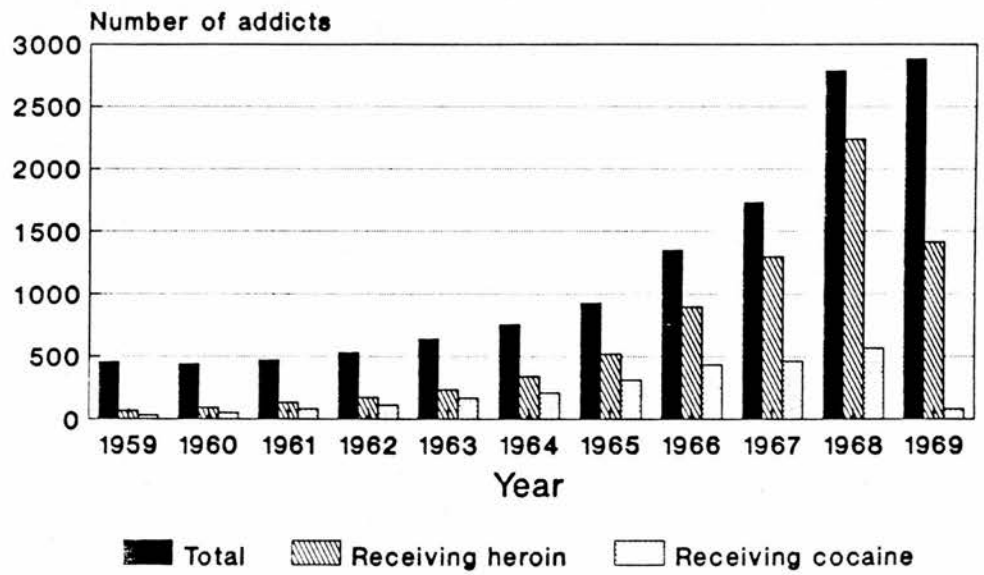
The dramatic impact of these legislation changes can be seen in the statistics relating to the number of addicts seen over the eleven year period between 1959 and 1969 (Figure 1.2). The changes in relation to the number of cocaine users is most noticeable with evidence of increased cocaine use amongst addicts in the years leading up to the 1968 legislation changes, then a dramatic drop from 564 known individuals in 1968 to only 82 in 1969. However, the development of clinic control over the prescribing of heroin and cocaine had, by the 1970's, coincided with the

emergence of a strong black market in a range of psychoactive substances. Some drugs were imported from Asia and the Middle East (e.g. opium/heroin), others from local practitioners (e.g. barbiturates) and others were often stolen from pharmacists (e.g. Diconal). The black market fed increasing numbers of new users who were commonly not represented in the notification figures since they did not receive prescribed drugs (Smart and Osborne 1974).

The late 1960's also saw an increase in multiple substance use. Many primary heroin users also used methadone which had been introduced as a substitute opiate to be used in the treatment of opiate dependence post 1968. The attraction of methadone to the medical profession was that it was to be used orally in the form of a linctus, thus avoiding the risks to health associated with intravenous use; it also was thought to have a lower addiction potential.

In addition to the opiates, many heroin users used barbiturates, primarily Mandrax, Tuinal, Seconal and Nembutal (Bewley, 1968).

Figure 1.2 :
Drug addict notifications 1959-1969*

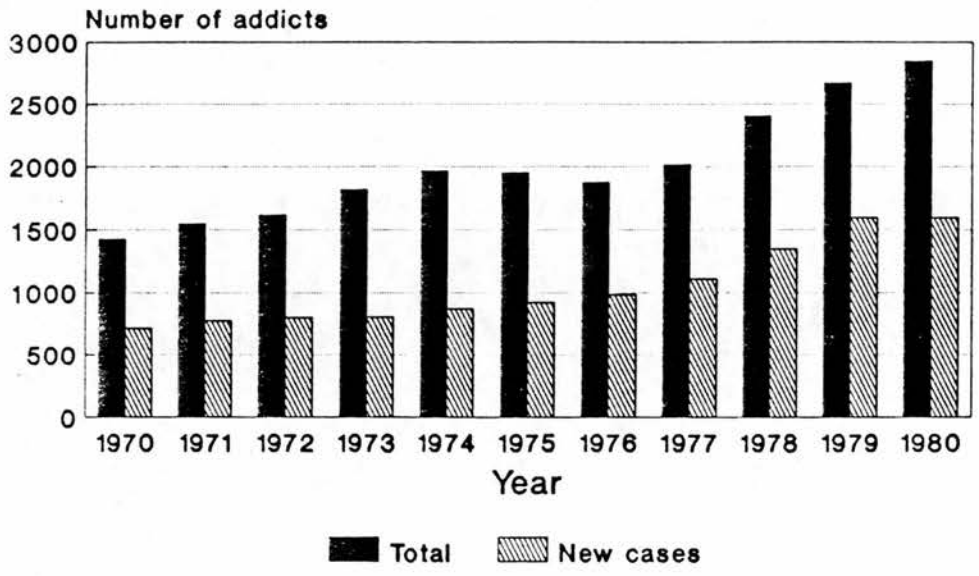


* year ending 31st December

Source: Spear (1982).

The figures based on the notification of addicts are however not foolproof, and although the numbers continued to rise throughout the 1970's (see Figure 1.3), doctors varied in the criteria they applied to the "need to notify". Firstly an addict has to present to a doctor (and it is not known how many do not), then the doctor has to recognise and identify drug dependence. Some doctors would notify a person on the basis of "reasonable suspicion" of addiction to a controlled drug; others would notify only those individuals who actually received a prescription for the treatment of their addiction. One study carried out the early 1980's found that just one in five regular (daily) opiate users were notified (Hartnoll et al., 1985b).

Figure 1.3:
Drug addict notifications 1970-1980*



*Individuals in treatment 31st December

Source: Home Office 1975, 1985.

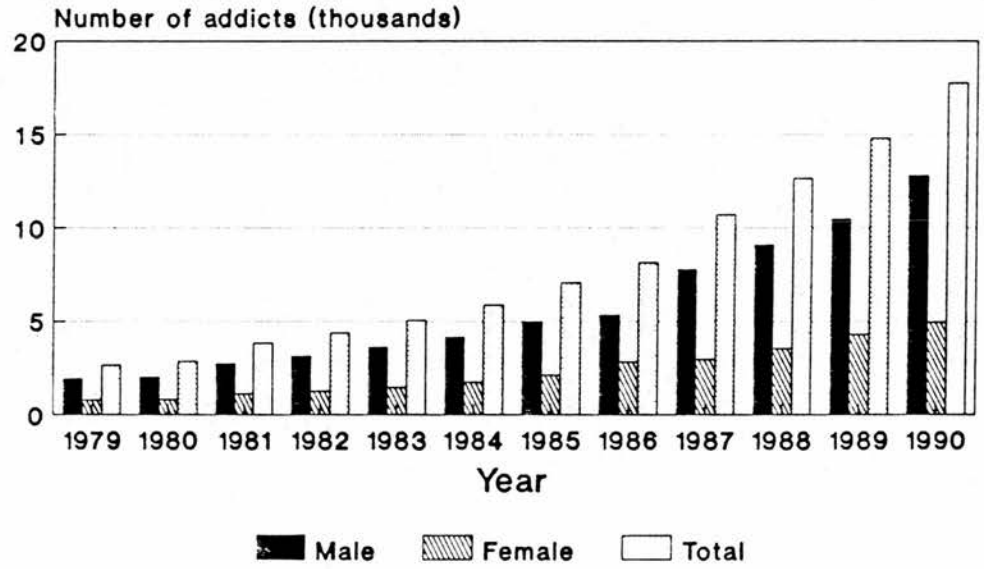
Until 1963 the sex ratio of known addicts was evenly balanced, subsequently however, males began to outnumber females, and by the late 1970's males outnumbered females by approximately 3:1 (Edwards and Busch 1981). In relation to the age of notified addicts, the numbers of users under 20 years of age showed a dramatic increase between 1960 and 1968 (from one to 764 individuals) then

declined between 1969 and 1979 (224 to 34 individuals) (Home Office statistics). However Spear (op cit) points out that the number of addicts under 20 years of age did in fact show signs of increasing at this time and is obscured in the Home Office figures due to their obtaining data primarily from treatment populations, many of whom had been in treatment for long periods of time.

These notification figures therefore only represent the " tip of the iceberg ". It is only possible to draw conclusions relating to broad trends in drug addiction over time from such data, rather than any real picture of the extent of illegal drug use at any one point in time.

Figure 1.4 depicts such trends in the number of narcotic addicts known to the Home Office from 1979 up until 1989, and although the sex ratio remains fairly static over this period (2.5:1, male vs. female), the upward trend for both sexes was rapid.

Figure 1.4 :
Drug addict notifications 1979-1990*



* year ending 31st December

Source: Home Office 1989, Plant 1992

1.3.3 Recorded drug offences

A better description of the nature of drug use (rather than the extent) can be obtained from statistics relating to convictions and cautions of individuals committing an offence under the Misuse of Drugs Act (1971) and its later amendments (see section 1.1.1.). These data provide us with a picture of the range of illegal substances used, rather than focusing solely on individuals recorded as " addicts ".

Figure 1.5a depicts the dramatic upsurge of heroin-related offences in the mid 1980's. The impact of stricter legislation relating to the prescribing of Diconal (dipipanone) in 1985 is reflected in the dramatic downturn in the number of persons found guilty, cautioned or dealt with by compounding, between 1984 (252 cases) and 1985 (97 cases). Cocaine related offences show a marked increase over this eleven year period from 331 offences in 1979 to 860 in 1990, and LSD offences likewise increase from 208 in 1979 to 915 in 1990.

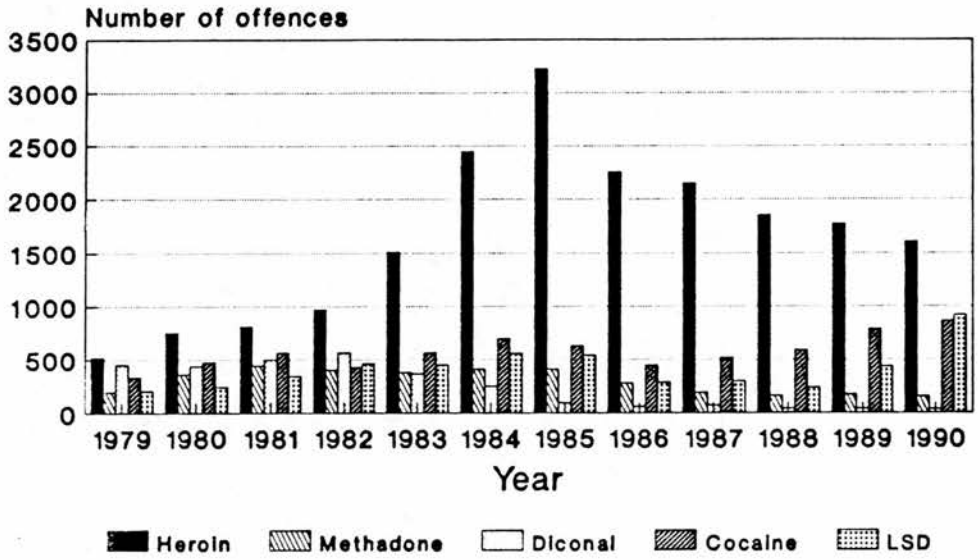
Amendments to the Misuse and Drugs Act in 1985 and 1986 also added barbiturates to the list of controlled drugs (Class B) as well as benzodiazepines (Class C). The bulk of offences continue to relate to cannabis however as shown in Figure 1.5b with the number of offences doubling between 1986 and 1990.

Most of the caution and conviction figures are for possession of small amounts of substance for personal use, rather than for large scale supply or trafficking (Plant, 1987). The courts take a more lenient view of those convicted for possession without proven intent to supply and it has been estimated that approximately 80% of those sentenced for drug offences receive a non custodial punishment such as a fine (Plant, op cit).

Although such data provide a picture of the range of drug offences and the range of substances being used, they still can not provide us with any means of estimating prevalence of use. Firstly, it has been estimated that clear-up rates for drug

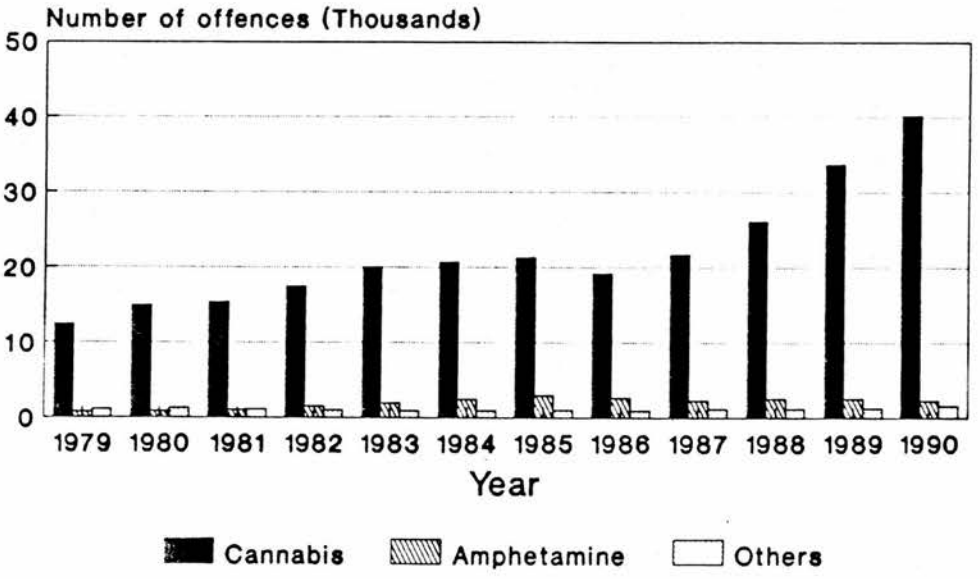
offences in general are low (1-2%), and secondly much drug use is covert and as such is unlikely to come to the notice of law enforcement bodies.

Figure 1.5a
Class A drug-related offences 1979-1990



•Persons may commit several offences

Figure 1.5b
Other drug-related offences 1979-1990*

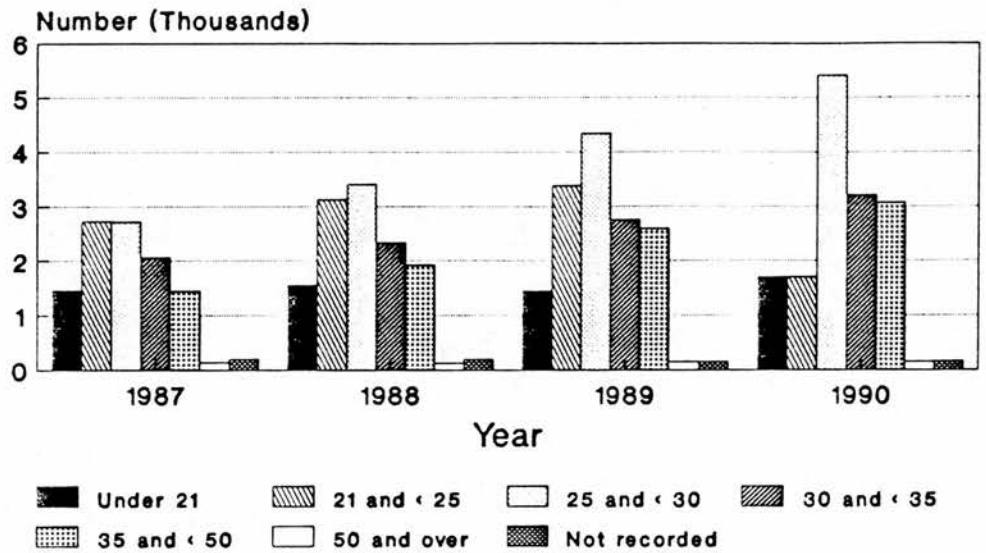


• Persons may commit several offences

Source of above tables : Home Office (1990), ISDD (1991)

At the time of this study there was a reported rise in the number of young (under 30) drug offenders and opiate addiction was largely seen to be a " young man's occupation ". This is reflected in Figure 1.6 where the addict notifications for the under 21 age group remains fairly stable in the years 1987 to 1990; the 21 to 25 age group rises gradually for the first three years and then drops in 1990; whereas the 25 to 30 year olds climb continually, almost doubling over this 4 year period.

Figure 1.6:
Addict notifications by age 1987-1990



Finally in this introductory chapter, I would like to discuss some of the drug issues that were being raised in the United Kingdom at the time this study was being carried out, with specific reference to those that were pertinent to Scotland.

1.4. Drug Issues in the United Kingdom: the 1980's

Although longitudinal research was and still remains sparse, data taken from Home Office notification and arrest figures during the 1980's, (presented earlier in this chapter) reveal certain "trends" in illicit drug use. These trends are reflected in several studies carried out in the UK at this time. The concept of dependence was becoming increasingly replaced by concepts of misuse where the recognition was of a continuum of use with only a minority of users becoming addicted to drugs in the classical sense of the word, i.e. physical addiction manifesting itself in an increasing tolerance to a substance and symptoms of withdrawal on removal of that substance. This study did not set out to concern itself with those categorised as "addicted", but rather to describe the diversity of drug use and the changeable nature of such use at both an individual and group level.

1.4.1 The drugs being used

At the outset of this study certain illicit substances had received a great deal of media attention, in particular that of heroin. The increase in Scottish heroin use suggested in the media was confirmed in the findings of three studies of heroin users carried out in two Scottish cities, Glasgow and Edinburgh (Haw, 1985; Robertson and Bucknall, 1986; McKeganey and Boddy, 1986). At around the same time the availability of heroin in the UK as a whole was reported to have increased (Dorn and South, 1985) and the resulting fall in the price of heroin is believed to have, contributed, in part, to the spread of heroin use in our cities. However the increase in heroin use was confined to patches of the country.

Results from a survey of 15 to 21 year olds carried out in 1982 (NOP, 1982) were published in the Daily Mail and showed that the prevalence of heroin use in most areas of Britain was low, as was that of cocaine (range 1 to 7% for heroin, 1 to 9% for cocaine). In contrast, the prevalence of cannabis use was, in all regions

examined, about 10% (range 13 to 28%). Although this survey did not cover all the drugs and drug categories possible, it was clear that Scotland had a particularly high level of youthful drug use. It should be noted however that this survey included very few Scottish respondents. These results may not, accordingly, form the basis for generalisation. Table 1.1 summarizes the findings of this survey which in addition to having different sample sizes in different regions, reports the percentage of respondents who had "ever used" a substance, not whether they were "current users".

Table 1.1 : Regional variations in self-reported illicit drug use amongst the 15-21 age group in Britain

Drugs ever used	Scotland (n=57)*	North of England (n=447)*	Midlands, East Anglia, Wales (n=338)*	SouthLondon England excluding London (n=330)*	London (n=153)
	%	%	%	%	%
Cannabis	21	15	16	13	28
Amphet's	8	4	6	3	10
Solvents	2	4	6	3	10
Barbit's	16	2	4	2	3
LSD	8	3	4	2	3
Heroin	7	**	1	1	1
Cocaine	9	1	1	1	3

* weighted total
** less than 0.5%
Source: NOP Market Research Ltd., 1982

A prospective study of Scottish 15-16 year olds carried out by Plant and colleagues (Plant, Peck and Samuel, 1985) also found the prevalence of self-reported heroin use to be low. At first interview 15 percent of males and 11 percent of females reported having tried one or other illicit drug, primarily cannabis. Four years later,

when 957 (92%) of the original 1036 respondents were reinterviewed, the percentages having used any illicit substance had increased to 37 percent amongst male respondents and 23 percent amongst females. Again the substance used tended to be cannabis (35 percent of males and 22 percent of females having by now tried this drug). Less than one percent of this study group had ever tried heroin, and none of these six individuals used heroin regularly or within the last month. In terms of regular use of cannabis, the percentages fell to 18 and 13 percent for males and females respectively. A ten year follow up of the remaining sample found cannabis continuing to be the most commonly " ever used " drug (Bagnall, 1991).

1.4.2. Characteristics of drug users

Lewis (1992) notes that the development of a black market in heroin in the early eighties was accompanied by a rapid increase in the availability of other drugs, particularly in working class areas of many cities. Several reports carried out in the 1980's had linked drug misuse and dependence to the working classes and to general deprivation (e.g. Ditton and Speirits, 1981) while unemployment was also considered to be a predisposing factor (e.g. Plant and Peck, 1986). It was suggested that drug use, or more specifically, misuse, was confined to " vulnerable " populations although a distinction continued to be drawn between drugs for the " rich " e.g. cocaine, and drugs for the " poor " e.g. heroin. " Addicts ", a term usually at this time referring to opiate injectors, were typically young, from poorer urban areas, and unemployed. A 1986 study by Robertson and Bucknall of opiate users attending a general practice situated in one predominantly working class area of Edinburgh, reported male employment of approximately 32 per cent.

The image of the drug user was that of a helpless and hopeless addict, a " junkie ". The media who helped to create this image, neglected to point out the low prevalence of opiate use, particularly that of heroin. They also omitted to report that

heroin had been used by some on a regular basis, without dependence emerging (e.g. Young, 1984). The heroin " epidemic " of the 1980's conjured up pictures of alienated subcultures, of a deviant and undesirable under-class.

1.4.3. The heroin years

Research evidence was portraying new heroin users as younger (e.g. Pearson, 1987a) and the stereotype of a heroin user was supported in the findings of an English study conducted by Howard Parker and his colleagues. Parker described the "typical heroin smoker" as a :

" young, unemployed man or women aged between 16 and 24, living in a relatively densely populated area with higher than average levels of socio-economic deprivation " (1986).

It has to be remembered however that much of the research carried out at this time was conducted with users in contact with treatment centres.

The criminality of heroin users was seen as evidence that heroin created criminals; whereas research which has specifically investigated the causal connection between illicit drug use and crime has shown that, in the main, criminal activities predate first illicit drug use, and certainly, use of heroin (e.g. Hammersley and Morrison, 1987, 1988).

However, as MacGregor points out:

"the themes that dominated public concern about drugs in the 1980's centred on the question of social order. The fear was expressed that the fabric of society was being undermined by subversive elements, criminal and alien imports, and corroded by an unacceptable change in values."
(MacGregor, 1989, p11)

During the 1980's enforcement was stepped up and targeted at the suppliers of heroin who were "feeding" the "epidemic". Several larger Scottish dealers received long prison sentences and, in part, this is thought to be responsible for a growth in the black market for other drugs, primarily pharmaceutical substances such as tranquillisers (e.g. temazepam) and opiate based painkillers (e.g. temgesic). These

pharmaceutical substances became, for many, the main drug injected. (e.g. Haw, 1985; Haw & Liddell, 1987; Hammersley et al. 1990).

By the late 1980's, heroin was rarely available in Scottish cities, although it continued to be widely used in many English cities (Pearson, 1987a). In England however, the smoking or "chasing" of heroin predominated, in contrast to the intravenous use adopted by the majority of Scottish heroin users (Parker, Bakx & Newcombe, 1988). Glasgow differed from Edinburgh in the late 1980's, in that Glasgow had developed a more sophisticated heroin market by virtue of connections to suppliers south of the border (Lewis, 1992). Although 1990 (after this research was completed) saw a record 609 Kg of heroin being seized in Britain, there were no indications of an increased availability in Edinburgh (Lewis, op cit). In the words of one young male interviewed during the course of this study:

"the hey day of heroin has long gone..... half of these young ones ain't ever seen smack."

The majority of illicit drug users contacted by the author, were multiple substance users; only a minority had used heroin or injected. Those who did inject however, tended to inject pharmaceutical substances such as valium, temazepam and a variety of opiates including diconal, temgesic and in the latter part of the study, morphine sulphate and cyclizine. Allegedly the use of this latter substance has been the cause of much "bizarre" behaviour. (e.g. Ruben et al. 1989). Heroin therefore began the 1980's at the forefront of attention, but by the end of the decade, at least in Scotland, had almost been forgotten in the face of an "epidemic" of licit substance abuse.The next section outlines the issue of drug related crime during the 1980's.

1.4.4 Criminality

There is a large amount of literature dealing with the drug-crime connection, and this area would require a thesis in its own right. For the purposes of this study it is sufficient to note that heroin is not the only drug that, when consumed regularly, can increase the likelihood of the consumer performing an economically motivated

crime in order to "fund their habit" (e.g. Hammersley and Morrison, 1986, 1987; Parker, Bakx and Newcombe, 1988). Both drug use and criminal activity may be the result of other pre-existing factors, such as personality, juvenile delinquency or social deprivation (e.g. Fry, 1985).

Drug use may increase the propensity of a person committing a criminal act, but in the main criminal activities of one sort or another predate first illicit drug use. It is not possible for this study to discuss the chronological sequence of events fully in that all respondents were already using illicit drugs. Studies of American school children and adolescents however suggest an earlier entry into deviance than into illicit drug use (e.g Johnstons' "Youth in Transition" study, 1973; Johnston , O'Malley and Eveland, 1978; Jessor and Jessor, 1977, 1978). British studies of current drug users found similar results (e.g. Scotland : Hammersley & Morrison, 1988; Hammersley et al, 1990; England and Wales: Mott 1981; ISDD, 1987).

1.4.5. The advent of HIV infection

When AIDS was first described in the early 1980's, it was thought to be a disease that only affected gay men. By 1982 it was accepted that AIDS had an infective cause and in 1984 the virus that was subsequently named HIV (Human Immunodeficiency virus) was isolated. By the mid 1980's AIDS was recognised as the disease which was killing many people, both male and female, in Africa; and by 1985 it became clear that people being infected in the West were not solely gay men, but also people who had received blood transfusions, needle sharing drug users, babies of infected drug users and even people infected through heterosexual intercourse.

The illicit drug users in this study (i.e. multiple substance users, some of whom are primary opiate users), are reportedly all heterosexual. Other studies of illicit drug users have also found heterosexuals to predominate. *

Initially however it was injecting drug use and the practice of needle sharing that was provided as an explanation of the numbers of drug users becoming infected with HIV (Robertson 1987; Brettle et al, 1987; Strang and Stimson, 1990).

The mid to late 1980's witnessed a dramatic upturn in the number of known injecting users identified as HIV infected by one Edinburgh medical practice (Robertson and Bucknall op cit.). Presentations of intravenous heroin users to this practice rose from 14 in 1980 to 230 by the end of June 1986. Between February 1985 and July 1986 there was an annual increase of 22% in the number of heroin users known to this practice although only 11.3% attended.

The sharing of injecting equipment was a common occurrence in Edinburgh in the late 1970's and early 1980's where the provision of sterile injecting equipment was dramatically reduced by the closure of a legal retail outlet in 1982 (Brettle, 1987; Green, Willocks and Leen, 1990).

" Shooting galleries " were less common 40 miles away in Glasgow , although needle sharing did occur (McKeganey, Bloor & Watson, 1988).

Until the opening of free needle exchanges in Edinburgh and Glasgow in the late 1980's (Stimson et al., 1988) it is likely that the practice of needle sharing was a major factor in the spread of HIV infection throughout this, mainly young, population.

The sexual behaviour of these users only began to be examined as a high risk source of infection in the late 1980's. Research began to inquire about condom use and some studies have suggested a link between the consumption of mood altering drugs or inhibitors, and " unsafe " sex (i.e. penetration without the use of condoms or other prophylaxis) (e.g. Stall et al., 1986; Robertson and Plant 1988; Siegel, 1987).

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* The proportion of injecting drug users to homosexual men infected with HIV, is very different in Scotland than the rest of the UK.

The use of alcohol and other drugs had previously been associated with disinhibition and " risky " sexual behaviour (e.g. Soloman and Andrews, 1973; Room and Collins; 1983).

At the time of this research therefore, HIV had emerged as a threat to those injecting drugs and/or sharing injecting equipment. However, the public and media took a long time to accept that HIV could no longer be considered solely as a threat to minority groups such as homosexuals and drug users, but as a threat to all sexually active persons.

The impact of HIV infection on drug use is described in later chapters where the author reports that, as the virus began to manifest itself within the social networks of users, behaviour began to change in response to concern about infection. HIV infection entered the drug injecting population as early as 1982, although the virus did not really become *visible* until the later 1980's when some drug injectors began to manifest symptoms of AIDS (Robertson et al., 1986).

HIV had an impact beyond that of the individual, to that of policy and drug treatment. This is described in the next section.

1.4.6. The role of prescribing

Whilst the heroin "epidemic" was developing in Scotland, there was, as stated earlier, growing concern over the increasing amount of prescribed substances (licit pharmaceuticals) reaching the black market. The existing British System of treatment (see 1.3.1) was dramatically revised. In Glasgow for example, during 1982, local doctors agreed on a voluntary ban on opiate prescribing, and hospitals phased out their methadone prescribing services (Drummond 1986). The medical model of drug abuse treatment was replaced by models of minimal intervention and prevention, with the emphasis shifting to out-patient rather than in-patient services. The advent of HIV infection led to changes in treatment priorities in Edinburgh as one general practice group wrote ;

" The development of this infection in intravenous drug users in Edinburgh has rapidly focussed the attention of clinicians and researcher on this group. In addition to the problems which will arise in those already infected, prevention of further spread to additional drug users, their sexual contacts and the children of infected females now presents a major problem for us all.....However uncomfortable it may seem to a clinician, the policy of "damage limitation" or "risk reduction" for those already misusing drugs is necessary....." (Roberts, Robertson & Bucknall, 1986, p 856).

HIV infection provided an impetus for the harm reduction approach to illicit drug use and, in particular, drug injectors. Prescribing to primarily opiate users was seen as a carrot with which to encourage drug users into contact with services where they could then receive not only advice relating to safer drug use and safer sex, but also in some services, medical treatment if required, such as the sterile treatment of abscesses. The Advisory Council on the Misuse of Drugs (ACMD)(1988) concluded that :

" The spread of HIV is a greater danger to individual and public health than drug misuse. Accordingly, we believe that services which aim to minimise HIV risk behaviour by all available means should take precedence in development plans" (p 75).

and further,

" Prescribing can be a useful tool in helping to change the behaviour of some drug misusers either towards abstinence or towards intermediate goals such as a reduction in injecting or sharing" (p 77).

Finally, this report pointed out that :

" HIV infection in Scottish drug misusers is not a problem for Scotland alone, it is a problem for the UK as a whole... All injecting drug misusers must have easy, uncomplicated access to advice on safer practices and to sterile injecting equipment...The value of substitute prescribing, undertaken with care, must be recognised. " (p78).

1.5 Rationale for the Present Study

1.5.1 The changing face of drug use

This study set out to monitor the " careers " of drug using individuals by assessing the influence of economic, social, cultural and personal factors upon changing patterns of drug use. Firstly, since the study group was composed of current

regular illicit drug users the issue of drug initiation (i.e. the reasons given for beginning to use illicit drugs and the contexts in which such initiations took place), is discussed in terms of its relevance to initiations to drugs other than that first ever used .

The 1980's had witnessed an increase in the convictions for drug offences and an increased variety of drug abuse. The second issue to be addressed was which factors contribute to an individual changing the patterns of his/her use; by adding a new substance to his/her " repertoire ", by switching from one to another, by changing the method of drug administration etc. This involved examining changes at individual and group levels.

This study also set out to describe the heterogeneity of drug users. Although public and official attention at the start of this study centred on heroin use, research consistently pointed to multiple substance use being the norm. Suggestions that certain behavioural outcomes (e.g. criminality, overdoses) were directly a result of the use of one substance alone, were at this time shown to be unjustified (e.g. Hammersley et al. 1990). This study examines the problems experienced by single substance users, multiple substance users and those injecting opiates and other substances.

Finally, the study hoped to be able to discover the impact of the threat of HIV infection on those users actively involved in either injecting or needle sharing practices, or in sexual relations. Whether or not the ACMD recommendations had led to increased service provision, the important factor is *uptake* of such services, such as needle exchanges or methadone programmes and this was also examined.

1.5.2. The meaning of drug use

As already highlighted, this study did not intend to contact users in clinics or prisons, but in their own communities, by means of a technique called " snowballing " (see Chapters 2 and 3). By combining standard data collection

techniques with non-participant observation it was hoped that this study would obtain valuable insights into the patterns and meanings of often covert behaviours. Drug use had been referred to in the literature as " escapism ", (e.g Cloward & Ohlin, 1960), as a meaningful lifestyle (e.g. Preble & Casey, 1969, p 3; Weppner, 1981), and a full time occupation (e.g Agar, 1973, p 21; Pearson, 1987a, p88). This research aimed to discover the meanings drugs provided for the users themselves.

In order to answer the above questions a prospective design was essential.

CHAPTER TWO : UNDERSTANDING ILLICIT DRUG USE : A REVIEW

2.1 Theoretical Explanations

There have been numerous theories of why people use illicit drugs; why they start; why they continue (often in the face of adverse consequences), and why they stop. This review limits itself to studies published in English, and focuses primarily on work undertaken in Europe or the United States.

In considering the drug use literature it becomes apparent that the research findings can mostly be split into one of two theoretical camps; those that explain drug use predominantly in terms of individual characteristics, and those that explain it predominantly in terms of environmental or sociocultural factors.

The most convincing explanations of drug use behaviour, however, come from studies that take an interactionist approach, allowing for individual and environmental factors in interaction to hold explanatory power in relation to drug use. This review emphasises studies which adopted this perspective, although micro and macro level explanations are discussed briefly.

2.1.1. Micro-level approaches : the individual

Explanations of drug use at the "micro" level focus primarily on aspects of individual personality and psychological make-up. Psychodynamicists explain behaviour (including the use of illicit or illegal substances) as a consequence of unobservable innate impulses that are located within the individual but modified through early developmental experiences. Trait theorists on the other hand explain drug use in terms of identifiable and measurable personality characteristics, such as introversion - extraversion. (e.g. Wingard, Huba & Bentler, 1979; Zuckerman, 1979). Personality theorists have claimed drug use to be a result of ego regression (e.g. Rado, 1933; Chein et al., 1964), emotional instability (e.g. Khantzian, 1985 ; McGuire & Megargee, 1974), sociopathy (e.g. Ausubel, 1958; Sutker, 1971;

Craig, 1979a, 1979b), hedonism (e.g. Matza & Sykes, 1961; Young, 1971; Berzins & Ross, 1973) and many other weaknesses. Drug users were thought to be immoral (e.g. Ausubel, 1958; Szasz, 1974), immature (e.g. Brook et al, 1974; Kay et al., 1978), apathetic (e.g. Smith & Fogg, 1978), genetically defective (e.g. Bardo & Risner, 1985; Crabbe, McSwigan & Belknap, 1985) antisocial (e.g. Craig, 1979a, 1979b) or neurotic (e.g. Vaillant, 1966).

However, much of the earlier research in this area was flawed in its focus on non-representative samples, differing definitions of what constituted " addictive behaviour " , inadequate or no comparison groups, and small sample sizes. Furthermore most of the earlier research focussed on cannabis (marijuana) rather than other illicit drugs although there were exceptions (e.g. Sutker, 1971). Even more recent research, for example personality studies of heroin users, frequently fail to provide comparison groups for their samples, or test norms for the battery of personality tests performed with the addicted samples (e.g. Craig, 1979a, 1979b). Claims of high levels of any personality trait, such as neuroticism amongst opiate dependents, are virtually meaningless unless a control group of non-opiate users are also tested.

Explanations which put drug use beyond a person's immediate control have often been referred to as positivistic or deterministic (e.g. Matza, 1964). Underlying many earlier studies was the hope of discovering an " addictive personality " , a type that, if identified by the mass screening of individuals, might facilitate intervention and prevention strategies. In order to identify any personality precursors of use, longitudinal studies which recruit their samples from non-drug using populations are essential. Without an addictive personality construct, personality theorists claim, we would have to conclude that all individuals exposed to the same environmental cues should be equally vulnerable to addictive behaviour, or with the position that the only difference between those addicted to drugs and those not is the simple fact that one is a drug addict! (Lang, 1983).

Many studies have continued to investigate the personality characteristics of drug users, and the results have been both inconsistent and contradictory. Even when a particular personality trait is reliably and repeatedly observed in studies of addicts, it is impossible to draw causal conclusions. For example, does rebelliousness, found in studies of school-aged cannabis users (e.g. Jessor, Jessor & Finney, 1973; Kandel, 1978; Smith & Fogg, 1978) precede, follow, or simply coincide with the drug use as a result of a third factor not measured by the researcher ?

Furthermore there has been such an array of characteristics ascribed to drug misusers that it becomes unlikely that it will ever be possible to identify definitively the " addictive personality ". Drug users can be of low and high educational attainment (e.g. Robins, Darvish & Murphy, 1970; Halikas et al., 1984), can exhibit both introversion and extraversion (e.g. Wingard, Huba & Bentler, 1979), religiosity and atheism (e.g. Jessor & Jessor, 1977; Adlaf & Smart, 1985), sociopathic and non-sociopathic behaviour (e.g. Ausubel, 1958; Rounsaville, 1988), be deviant and non-deviant (e.g. Hamburg et al., 1975; Smith & Fogg, 1978; Huba & Bentler, 1980, 1983; Dembo & Shern, 1982; Newcomb, Maddahian & Bentler, 1986) and so on. Personality alone cannot account for the variability between drug users and non-users, since drug users themselves exhibit widely varied personality traits.

If drug use behaviour occurred solely as a result of individuals' underlying personality traits, then behaviour should be both consistent and stable. Behaviour is rarely either. Patterns of drug use and dependence similarly, vary over time at both an individual and group level. If personality was the only explanation available, to what characteristic would we ascribe the upsurge in heroin use witnessed in Scotland in the early 1980's? Was there a sudden mass upturn in the number of sensation seekers or those seeking immediate gratification and short term oblivion ?

Behaviour does not occur in a vacuum but rather is shaped by situation and context (e.g. Cloward & Ohlin, 1960; Zinberg, 1984). Individuals may react differently to

an external stimulus but display the same behavioural outcomes . For example two youths watch a programme about heroin; one finds himself curious about the effects of the drug described, the other finds himself excited at the prospects of breaking the law to get hold of the "all powerful" heroin. Both go out in pursuit of heroin the next day but when subjected to personality testing score quite differently. In the same scenario another person is shocked and saddened by the appearance of the heroin using youths on the television and vows never to try it. Obviously developmental experience which shapes personality could explain these different responses, but it would be wrong to say that both individuals who went off to seek out heroin had experienced the same developmental upbringing, one in contrast to the youth who decided never to use heroin. Furthermore we could not assume that either of the youths from the first scenario would have gone in pursuit of heroin had they not seen the television programme.

The point is that environmental factors can interact with existing personality factors to produce behaviour that can vary between individuals (e.g. Mischel, 1968). In addition the same external cues could elicit a different response in the same individual if other factors were varied, for example a person may say "yes" to a drug offered him at a weekend party, but "no" to the same person offering the same drug on a weekday. Mischel (1968) states that it is wrong to assume cross-situational consistency in behaviour and instead observes that people adjust and adapt their behaviour to meet the unique demands of any given situation.

Personal and situational variables must therefore both be taken into account when explaining drug use behaviour. It must not also be assumed that the measures commonly used to determine personality characteristics of drug users are stable and constant over a lifetime, for example ; the MMPI (Minnesota Multiphasic Personality Inventory) (e.g. Brook et al., 1974 ; Jaffe & Archer, 1987; Andrucci et al., 1989; Lavelle, Hammersley & Forsyth, 1991), or measures of self esteem (e.g. Segal, Huba & Singer, 1978; Jessor & Jessor, 1980; Kaplan, 1980) or

sensation-seeking (e.g.Brill, 1971; Platt, 1975; Zuckerman, 1979, 1983, 1984; Jaffe & Archer, 1987; Andrucci et al, 1989; Newcomb & McGee, 1991).

Section 2.1.2 describes briefly the role of culture on the individual drug user, and Section 2.1.3. describes the failings of purely individualistic and cultural explanations of drug use and discusses approaches to drug use that allow for interaction between the individual and the wider society in which he lives.

2.1.2. Macro-level approaches : the society

Not all explanations of drug use attribute the cause of the behaviour to the inner personality of an individual, others view drug use as being determined by environment, society or cultures (e.g. Cloward and Ohlin, 1960; Mischel, 1968).

Cultural mores and norms relating to the use of mind-altering substances vary greatly from country to country (and even state to state in the USA), and also vary across time within different regions. For example, Berridge (1979) has described how opium (and preparations derived from it), morphine and cannabis were available in Britain as over-the-counter purchases until 1868. Opium use was widespread during the 19th century, primarily raw in the form of pills or "penny sticks" or in the form of the tincture, laudanum. Morphine and cannabis use was rare at this time (Berridge and Edwards, 1981). In 1868 the passing of the *Pharmacy Act* put sales of opium into the hands of registered pharmacists, whereas previously, street corner grocers could and did sell opium-based medicines. Britain was at this time also involved in the Indo-Chinese opium trade. Opium use for the large part of the 19th century was both normal and mainly acceptable. If a comparison is drawn with modern day attitudes and norms regarding heroin use, the change is obvious. In fact, throughout history we find examples of contradictions in the levels of tolerance extended to the use of a variety of popular drugs such as alcohol, caffeine, nicotine, cannabis, coca and cocaine (e.g. Szasz, 1974; Berridge & Edwards, 1981; Orford, 1985). Currently, the substances with

the longest histories and the most widespread use tend to be the most tolerated whereas new drugs and drug use behaviours tend to be greeted with scepticism and fear. For example the arrival and spread of young users of Ecstacy (e.g. Foley & Todhunter, 1992), popularisation of the practice of injecting prescribed drugs (e.g. Hammersley & Morrison, 1987; Hammersley, Lavelle & Forsyth, 1990; Sakol, Stark & Sykes, 1989), or the potential upsurge in crack cocaine availability and use predicted to occur in the UK in the late 1980's (e.g. Shapiro, 1989).

Compare the blatant promotion of alcohol use and products in many Western countries with sanctions against such use in other countries, or more specifically religions. For example in Islamic countries the predominantly Muslim populace is forbidden to use alcohol (Pittman and Snyder, 1962). Individuals are therefore more or less likely to use mind-altering drugs depending on the culture and era in which they live.

Sociocultural approaches to drug use focus on the description of drug subcultures and subcultural norms.

As Clausen (1978) put it ;

" ...we are dealing with the developing behaviors of individuals who are embedded in different social matrices (families, peer networks, schools), which are themselves embedded in larger sociocultural milieus, all of which are changing " (p 235).

Within these explanations the notion of shared beliefs, values, meanings and experiences is of paramount importance (e.g.Cohen, 1955; Downes, 1966; Schur, 1966; Plant, 1975). Some explanations of drug-using subcultures describe members as retreatist, i.e. using illegal substances as a means of adapting to the experienced failure of achieving the goals expected and valued by the wider culture such as employment and material wealth (e.g. Merton's theory of anomie, 1957; Cloward & Ohlin, 1960). However proponents of the above fail to recognise the positive functions of drug use, for example those individuals that use drugs as an instrumental means of enhancing creativity and alertness or social skills and interaction (e.g. Preble & Casey, 1969; Weppner, 1981; Young, 1971). This

relates to earlier findings that those in the medical profession were prone to opiate use due to a combination of knowledge of effects and availability (e.g Berridge, 1979; Stimson & Oppenheimer, 1984) and findings that those in the alcohol trade such as publicans may be prone to excessive alcohol use (e.g. Plant, 1987). However, as Sadava (1975) observed, the functions of drug use may differ depending on characteristics of the individual such as his/her age or sociocultural position. Sadava points out that whereas opiate use may provide, amongst other things, relief from feelings of inadequacy, detachment, reduction of depression, avoidance of personal problems, expressions of rebellion, or relief of boredom for users in urban slums; opiate use by a physician, may have slightly different perceived functions, for example, to relieve fatigue or role strain, to relieve alcohol hangovers, to cope with marital problems.

A common theme in sub-cultural theory is that sub-cultures share norms, beliefs and behaviours that are contrary to those upheld and valued by the wider culture, that is, the wider social structure in which the subculture exists. Subcultural theories were developed primarily to explain the behaviour of low status, socially and economically deprived, young male delinquents (e.g.Cohen, 1955; Downes, 1966; Matza, 1964, 1969). However, it was recognised that members of drug-using subcultures may also have simultaneous membership of non-deviant subcultures where drug use or deviance is not the norm (Matza, 1969 ; Plant, 1975). The drug users in this current study were affiliated to conventional society to varying degrees, for example among those who were employed, drug use was hidden from colleagues with whom other behaviours and values were shared, such as " doing a good job " or " getting a decent wage ". For unemployed persons it was less often the case that they openly identified themselves with non-drug users or " straights ".

2.1.3. Interactionist approaches : the individual and the environment

Personality is an insufficient explanation for drug use, as are simply stimulus-response type theories (i.e. that cultural norms lead to use or unemployment leads to use), therefore a wider view was required. The accepted view of human behaviour is, as Shaffer and Burglass (1982) describe ;

" ...that patterns of human behavior emerge as a result of the interplay between an individuals characteristics and the environmental presses encountered during development..." (p 488)

and it is therefore logical that, as a type of human behaviour, drug use will have the same roots.

Jessor and Jessor (1977) recognised the need for a theory of problem behaviour (including the illegal use of mind-altering substances) which allowed for multiple determinants. Their theory, as applied to drug use, states that individual differences in behaviour can be explained by aspects of individual *personality*, plus different aspects of the individuals' *perceived environment.* They divided the personality system into three different types of measures; those related to the *motivational-instigation structure* (such as value placed on, and expectations of independence and academic achievement), the *personal belief structure* (i.e. social criticism, self esteem, alienation and locus of control), and the *personal control structure* (such as tolerance of deviance, religiosity). The perceived environment system was divided into *proximal and distal structures.* Variables within the distal structure included parental and peer support and control, parent-peer compatibility and parent-peer influence, and variables within the proximal structure included parent and peer approval of the problem behaviour, and peer modelling of the problem behaviour. These latter variables have consistently emerged in studies of predictors of problem behaviours including alcohol and illegal drug use (e.g. Jessor, Jessor & Finney, 1973; Kandel, Kessler & Margulies, 1978; Smith & Fogg, 1978), although the Jessors do point out that,

" A *constellation* of developmental changes appears to characterise the process of becoming a drinker, or a marijuana user, or a non-virgin, and the taking on of this pattern of characteristics seems to be involved in making a transition" (Jessor & Jessor, 1977, p 205, their emphasis).

This research also pointed to the need to recognise that potential predictors vary in potency over time, for example , as the adolescents grew older they had a greater number of drinking peers, and a decreased intolerance of deviance (Jessor & Jessor , 1975).

Where the Jessors and their supporters suggest that drug use and other problem behaviours are the result of personal factors **added to** environmental influences, others (e.g. Sadava & Forsythe, 1976) pointed out **interaction** effects between person and environment variables. They found, for example that social support **for** drug use could be outweighed by high perceived " fear functions " of drug use (i.e. subjects were asked to what degree they thought abstinence provided a means of avoiding negative psychological, interpersonal, physical and legal consequences). Later works of Mischel (e.g. Mischel 1981) note that the interaction between personal disposition and the environment actually accounts for more of the variance in behaviour than does either factor alone or summed.

It is clear that no one facet of either individual make-up or social circumstances will suffice as an explanation of illicit drug use. Very few contemporary researchers would even begin to suggest that anything but a complexity of factors interact and combine to facilitate, rather than unequivocally determine, use.

2.1.4. Drug use as a health-related behaviour

Health behaviour theories define the relationship between individuals' beliefs, cognitions and risk behaviours, such as drug use. An early work by Rosenstock (1966) concluded that preventive actions are most likely to occur when individuals perceive the consequences of a disease as serious, perceive the benefits of preventive action as outweighing the costs of such actions, and experience behavioural cues to action. (We need to substitute the word 'disease' with the

words 'drug use') Becker (1974) proposed a modified Health Belief Model (HBM) whereby health-related behaviours are carried out or not carried out depending upon a person's perceived susceptibility beliefs (i.e. the belief that they are susceptible to an illness or outcome such as addiction); their perceived severity beliefs (e.g. belief that addiction is a severe outcome); the perceived benefits of carrying out a health (or preventative) behaviour (e.g. choosing not to initiate drug use) and the perceived barriers (e.g. barriers to saying "no" to drugs). Becker additionally stipulated that there must be a "cue to action" to stimulate a person's beliefs about the behaviour, for example, watching a television programme about the relationship between lung cancer and smoking.

In these frameworks drug use is seen as a health-related behaviour whose occurrence is controlled by attitudes and beliefs about the act of drug use. The Health Belief Model is limited in that it can only explain as much of the variance in drug use behaviours as is attributable to attitudes and beliefs, since it includes no mention of intention or decision making or the role of external variables. The majority of studies applying this model to substance use have related to smoking behaviour rather than to use of illegal drugs, the majority were cross-sectional, and different measures of health beliefs were employed (e.g. Swinehart & Kirscht, 1966; Warnecke et al, 1978; Radius et al, 1980; Pederson, Wanklin & Baskerville, 1984).

The Theory of Reasoned Action (TRA) (e.g. Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980; Fishbein & Middlestadt, 1987) is a model of behavioural intentions where most behaviours are considered to be under volitional control and therefore behaviours occur where there has been an intention to perform that behaviour. Intention is seen to be determined by two weighted components; *attitude towards the behaviour* (i.e. based on the person summing his/her beliefs about the outcome of the behaviour with their appraisal of that perceived outcome) and the *subjective norm* (i.e. the perceived expectations of significant others in relation to the

individual performing the behaviour in question, plus the extent to which the individual is motivated to comply with the expectations of others). Fishbein and Middlestadt (1987) point out that intentions must be measured in the same time frame as the behaviour under study. For example they suggest that if one is going to assess whether or not a group of people use marijuana next week, it is important to ask them previously whether or not they intend to smoke during the forthcoming week.

There has been debate as to whether drug use is under volitional control and thus applicable to this model. If a strong relationship can be found between intention and resulting behaviour, then the behaviour in question is likely to be under volitional control. However in terms of illicit drug use, some would argue that continued use is a result of dependence and can not therefore be termed volitional behaviour. This is not however the case for non-dependent drug use, that is, recently initiated or occasional use, and even for drug dependents some would argue that the drug user remains in control, for example ;

"..The addict is not passively compelled to use drugs, he can and does control his own drug-taking " (Gossop, 1982, p275)

and,

"..in the interviews we heard nearly all, including the heaviest users, hold to fairly rigid rules about what they will and will not use." (Glassner & Loughlin, 1987, p50),

and,

" One need not give up free will and intentionality if using drugs....The subjects choose which drugs they will use, which they prefer, and which they will avoid in large part on the basis of controllability. They express two closely related concerns : self-control over their own actions and thoughts, and control over the effects of the substances they use. " (Glassner & Loughlin, op cit, p 51).

Several studies have applied the TRA to alcohol, tobacco or illicit drug use (e.g. alcohol: Schlegel, Crawford & Sanborn, 1977; Budd & Spencer, 1984, 1985; Marijuana and other illicit drugs : Pomazal & Brown, 1977; Bentler & Speckart,

1979; Budd, Bleiker & Spencer, 1983). Some of these studies are described further in the next section, in terms of their findings relating to initiation.

2.2. Theories of Change

This section outlines some of the different explanations that may come into fruition at different stages in a drug user's "career".

Lettieri et al. (1980) described how drug use has more or less consistent stages of involvement, which include initial use, continued use, transition from use to abuse, cessation or controlled use, and finally relapse. In reviewing the literature in the following pages this thesis attempts to delineate between explanations of use put forward for each of these different stages. It must be noted however, that the vast majority of published papers deal with one or other of the two extremes i.e. either first ever illicit drug use, or dependence. It is hard to find work which addresses the processes of movement and change in drug using lifestyles. Dependence is not a main theme of this thesis. The review accordingly does not emphasize the vast literature on this subject.

2.2.1. From non-use to use : Initiation

As described in Section 2.1.1., many studies have attempted to discover a constellation of personality characteristics that consistently differentiate drug users from non-users. If these studies had been consistent in their findings it may then have been possible to assess a large sample of young people in order to identify the predictor characteristics and conclude which individuals were likely to use illicit drugs. However, many of these studies were flawed in that they did not provide control groups for their drug using subjects and thus could not claim that the percentage of drug users scoring high on, for example, a scale of Sensation-seeking, was significantly different from a matched control group of non-drug users. Furthermore many studies were cross-sectional and relied on retrospective

explanations of behaviours, attitudes and characteristics which pre-dated the first use of the illicit drug.

Initiation to cannabis/marijuana

In order to best understand which factors facilitate initiation, it is necessary to consider the findings of several large scale longitudinal studies carried out in the United States of America. Firstly, there is a wealth of evidence supporting the view that cannabis (or marijuana as it is commonly referred to in the American literature) is typically the first illegal drug to be initiated after the use of alcohol and tobacco. These findings have been taken as supporting the existence of "stages" in drug use (e.g. Kandel, 1978b, 1980; Kandel & Logan, 1984; Yagamuchi & Kandel, 1984). These stages have been supported in several pieces of research including cross-sectional work (e.g. Huba, Wingard & Bentler, 1981) and longitudinal work (e.g. Miller et al., 1983; Johnston, 1973, 1987; Johnston et al, 1985). It has also been suggested that the earlier an individual becomes involved in adolescent society, for example by socialising beyond the family situation, the earlier he/she is likely to smoke, drink, or take illegal drugs for the first time (e.g. Kandel , Kessler & Margulies, 1978; Clausen, 1978).

Many factors have been linked to the prediction of cannabis use. Definitions of what constitutes a *user* of a particular substance are also varied. Kandel and her colleagues defined individuals who had used a substance *once* as a "user" whereas in the Jessors' work a user was someone who had used a substance *at least once in the previous year* (e.g. Jessor & Jessor, 1977; Jessor, Jessor & Finney, 1973; Donovan & Jessor, 1985). The Jessors' work was based on a theory of problem behaviour which proposes that drug users can be distinguished from non-users by earlier manifestations of independence, lack of respect for conventional institutions and values, low expectations of academic achievement, a critical view of society, deviance, and a greater importance attached to peer approval. This theory proposed that there exists a general syndrome of deviance (Donovan & Jessor, 1985) where

a variety of problem behaviours are associated with one another and are perhaps generated by one underlying propensity such as unconventionality, or, in other words, latent deviance. This is not wholeheartedly supported in the findings of other research. For example, Osgood (1988) in his study of adolescents, did not find different deviant behaviours to have reciprocal relationships over time with other deviant behaviours. Osgood argues that different deviant behaviours may in fact become more specialised over time. This conclusion is similar to that reached by Newcomb and colleagues (Newcomb & Bentler, 1988a; Newcomb & McGee, 1991) who suggest that the " problem behaviour syndrome " may be present in adolescence, as the Jessors found, but that it may not be a unified construct in young adulthood or later. Newcomb and his colleagues did however classify several of the Jessors' characteristics of problem behaviour as "risk factors" within a risk factor index (Newcomb & Felix-Ortiz, 1992), such as low academic expectations, importance of peer approval and deviance. These researchers point out that risk factors for drug use are multiple, involving not only behavioural and personality variables, but also social, psychological and environmental variables. Similarly factors that can be seen as protective against use are many and varied, for example, religiosity, law abidance, good home relationships.

The factors relating to cannabis initiation are thus not always conclusive.

Attitudes, beliefs and peers

In terms of initiation into cannabis use, many studies have shown that having cannabis-using peers and favourable beliefs and attitudes towards cannabis are predictive of its initiation (e.g. Becker, 1953; Jessor & Jessor, 1977; Kandel, Kessler & Margulies, 1978; Huba, Wingard & Bentler, 1981; Dembo et al, 1985; Elliot et al, 1985).

Clausen (1978) notes that ;

" Drug use in its manifold guises is learned behaviour, and it is most often learned by participation in a subculture" (p 235).

Becker supports this in his description of the first use of cannabis, whereby a novice is initiated into use by an accomplished user, usually a peer, but first the novice must have a desire to use, then he/she is taught how to use and how to perceive the effects as enjoyable. This explanation of first use has also been applied to other drugs such as heroin (e.g. Pearson, 1987). In a similar vein, research exploring the phenomenon of *non-use* (in circumstances where a substance is available and widely used by others) , found that attitudes and beliefs about the effects and benefits of using a drug such as cannabis differed significantly between users and non-users. Non-users were more likely to believe that, a) cannabis use would be psychologically and/or physically harmful, and, b) that their friends would expect them **not** to use (Budd, Bleiker and Spencer, 1983). These authors conclude that non-use of cannabis, like use, is a reasoned action based on attitudes and beliefs about a behaviour in conjunction with beliefs about what is normative. This research is based upon the Theory of Reasoned Action discussed in the previous section and the findings could apply to drugs other than cannabis.

Personality

In their longitudinal studies of high school youth the Jessors found that expectations for independence were higher amongst prospective cannabis users as was greater value placed upon independence compared to achievement. This has also been found in other studies (e.g. Sadava, 1973). Several studies have examined the relationship between personal well-being and initiation to cannabis. For example Jessor and Jessor (1978) found high scores of personal alienation among prospective cannabis users and Kandel and colleagues found that depressive mood predicted onset of cannabis use among high school students (Paton, Kessler & Kandel,

1977). Smith and Fogg (1978) found a low sense of being valued, accepted and capable amongst the adolescents studied who started cannabis use. However, O'Malley did not find support for these findings in his study of the Youth in Transition cohort, and instead concluded that :

" variables which tap into psychological problems, e.g. negative affective states - showed .....little relationship with later drug use" (O'Malley, 1975, p. 269).

The support for the negative personality traits associated with initiation to cannabis use is mixed, however there are several positive traits that appear to be supported over several studies. For example, peer ratings of the high school sample in the Smith and Fogg study gave early marijuana users higher scores for being "sociable, talkative, outgoing" (Smith and Fogg, 1978), and Plant (1975) found that socially active females were more likely to be using drugs than those less inclined towards social situations. Most drug use is closely linked with social behaviour, so this type of association is really just a function of social interaction.

Behaviour

In terms of behavioural predictors of cannabis initiation several studies have shown a relationship between poor *academic achievement* and use. Lower grades and a greater number of skipped classes have consistently been found to precede cannabis use in high school students (e.g. Johnston, 1973; Jessor & Jessor, 1977; Kandel et al, 1978; Smith & Fogg, 1978). These studies were all longitudinal and therefore could indicate the sequence in which events occurred.

Involvement in *juvenile delinquency* or deviancy have also been consistently found to precede cannabis initiation. Minor delinquent acts such as cheating in school tests, speeding, petty theft etc, predicted under age alcohol use as well as initiation to cannabis whereas more serious offences such as drug dealing or robbery predicted, not only cannabis use, but initiation into use of other illicit drugs. There appeared to be a hierarchy of delinquent or criminal acts (e.g. Johnston, O'Malley

& Eveland, 1978; Jessor & Jessor, 1978; Kandel, Kessler & Margulies, 1978). In a Scottish study investigating the relationship between drug use and criminal activity, criminal activities showed a similar stage type sequencing as proposed for drug use (Hammersley and Morrison, 1988; Hammersley et al., 1988, 1990a). For example, in terms of median age of first performing a behaviour, vandalism tended to precede cigarette smoking, involvement in violence occurred prior to alcohol use, with breach of the peace predating later cannabis initiation. Drug selling and fraud tended to be initiated after first opiate use. (Hammersley et al., 1988, p. 128)

Summary

The evidence relating to predictors of cannabis initiation is varied; findings point to personal and psychological predictors as well as to those of a sociodemographic nature. Whether the initiation of cannabis use varies from the initiation to other "problem behaviours" is more questionable. Jessor has provided the following view of the social-psychological attributes predictive of problem behaviour in general :

" ..lower value on achievement and greater value on independence, greater social criticism, more tolerance of deviance, and less religiosity in the personality system; less parental control and support, more friends' influence and more friends' models and approval for drug use in the perceived environment system; more deviant behavior, less church attendance, and lower school attainment in the behavior system'. (1976, p 132-133)

Many of these factors emerge in studies of drug users, but not always as precursors. Furthermore many of these factors will not necessarily distinguish drug users from non-drug using deviants involved in other activities.

In Kandel's stage model a person will begin illicit drug use with cannabis and then some will move on to use other illicit drugs, again staged so that other substances such as heroin and cocaine are initiated at a later age than tranquillisers or amphetamines. Several studies have found cannabis use to be a significant predictor

of the initiation of pill use (tranquillisers and/or barbiturates), and of cocaine and hallucinogens (e.g. Cohen, 1972; Mills & Noyes, 1984).

It is important here to distinguish between *sequential, "stepping-stone"* type explanations of progression, such as that suggested by Kandel and her colleagues, (whereby an individual first tries one substance and then at a later date another, leaving the previous drug behind) and *cumulative* progression whereby individuals trying a new drug, **add** its use to those already experienced and used, and so use an increasing number of substances (e.g. Mills & Noyes, 1984). Both types of progression may involve different reasons for initiating the novel substance.

Since the initiation of drugs other than cannabis tends to follow rather than precede cannabis use, the factors influencing use of these other substances are more fruitfully placed in the discussion of continuation, discussed in the next section.

2.2.2. Continuation, multiple substance use, and dependence

The reasons that illicit drug users give for continuing to take the substance(s) they do, are similar to the reasons given for licit substance use. These reasons include: to reduce anxiety or relieve tension; to help relaxation; to facilitate socialisation; to reduce boredom; for enjoyment; to improve mood; and to escape problems. It is a fault of much of the literature that many of these positive aspects of use are neglected in favour of explanations of continued use that are built upon models of dependence, or of compulsion. As Allport (1937) suggested, compulsive behaviours have a "functional autonomy" in that the motives originally underlying a behaviour may bear little relation to those contributing to its continuation. (Whether or not continued drug use is "compulsive" behaviour is debatable and will be discussed at a later point in this section).

The explanations of drug initiation described in the previous section, for example, Problem Behavior Theory or the Theory of Reasoned Action, can also be provided as explanatory models of continued use. Drug use continuation can be simple

repeated use of one substance, such as the many individuals who go on to regular and stable use of cannabis after initiation (e.g. Swadi, 1988), or, continued use may involve increased use in terms of the frequency of consumption and/or the nature of the substance used, for example the smaller number of cannabis initiates that go on to use other drugs as well as, or other than, cannabis (e.g. Kandel, Kessler & Margulies, 1978; Mills & Noyes, 1984).

This section deals predominantly with non-stable use, in that studies examining multiple substance (or poly-drug) use and/or progressive drug use are described.

Attitudes, beliefs and peers

Multiple substance use tends to be the norm in drug using groups (e.g Mott, 1976; Stimson & Oppenheimer, 1982; Hammersley & Morrison, 1987; Hammersley et al, 1988) and again the role of peers is thought to be of major importance in the encouragement of experimenting with new substances (e.g. Kandel, 1980; Glynn, 1981). Wanting to be part of a group involves sharing behaviours and attitudes and receiving approval from other group members. Favourable attitudes towards use evolve through witnessing others using a substance and apparently coming to no harm. Pomazal and Brown (1977) found that favourable attitudes towards a drug plus the perceived expectations of significant others as regards whether or not to use, were most important predictors of intention to use. Whereas factors facilitating initiation to the first ever illicit drug used (usually cannabis as noted earlier) may involve personality characteristics, factors influencing further drugs being tried are more likely to be social or circumstantial, or simply out of a desire to achieve further, more profound effects (e.g. Brown et al., 1971). Lacy (1981) found that the perceived drug use of friends was the most important factor influencing intentions to use cocaine, heroin and other opiates, psychedelics and

stimulants. Plant states that:

" The form that drugtaking assumes similarly reflects the example, habits and values of one's closest associates and friends, or those whom one chooses as exemplars. People generally use whatever drugs are recommended and accepted by their peers". (1987, p 71)

Groups of young people who have regularly been using one substance, learn about other drugs through contact with their dealers and other acquaintances, as well as through the usual routes of the media. First use of a new substance, for example, heroin, rarely occurs as a result of a dealer giving out free samples to young people (e.g. Preble & Casey, 1969, p.6; Pearson, 1987a, 1987b). Pearson points out (1987a, p.80) that friendships are the " essential lubricants of drug exchanges " and that a friend offering a drug is more likely to meet with acceptance than if it is offered by a dealer or a stranger. Research into heroin initiation amongst 546 clients of a methadone maintenance programme has shown that for women, initial use is highly influenced by having a male partner who uses (e.g. Hser, Anglin and McGlothlin, 1987a, 1987b). This was not the finding however of an earlier study where 20 female heroin addicts were most often introduced to heroin by another female (Chein et al., 1964). The small sample size of this study limits the generalisability of this finding. Although several studies suggest that social roles and expectations differ for females and males, many other studies have male only samples or only a small number of female respondents and therefore do not examine circumstances of initiation separately.

As a group, drug users may share beliefs about what is harmful or what is "too heavy", and may lay down rules as to what is acceptable within their network (e.g. Zinberg, 1984). For example, it may be acceptable to swallow some tranquillisers but not to try heroin or to inject. The role models for many young users tend to be older drug users, or at least those who have been using for greater lengths of time. Knowing someone who has taken tranquillisers and reported only positive effects is a strong predictor of trying them oneself. However adding a new drug to ones'

repertoire can also be purely opportunistic; one member of a group obtains a number of "pills" from the medicine cabinet in the home and brings them to his group who then try them en masse. There is almost always a level of conformity within close social groups, where non-conformity could carry the risk of being ostracised by ones' peers (Akers et al., 1979).

It may also be easier to carry out further "deviant" acts once one has crossed the threshold into "deviance". Having used and enjoyed cannabis (for example), may lead to a positive reappraisal of attitudes towards other drugs, conventional ties and, by implication, restraints may be weakened, thus increasing the likelihood of the individual saying "yes" to a new drug opportunity.

Fishbein and Middlestadt (1987, p.365) point out that a person may have a relatively weak intention of performing a certain act, such as increasing ones' cocaine use. Even so, when this intention is balanced against other intentions such as the intention to reduce or stop cocaine use, or to maintain a stable level of use, the intention to increase use could be stronger. In this case the behaviour in question would increase. This explanation would hold for initiating a new substance, where the intention to try a new substance, may be weak but may outweigh the intention not to try it or to give up drugs altogether.

Availability is a key factor in the initiation to illicit drug use. Once a contact has been made for purchasing the first illegal drug used (usually cannabis), it is easier to obtain access to additional substances. The dealer may encourage the customer to try new substances as an alternative to their usual drug of choice, or as a supplement to their usual drug by claiming enhanced effects.

Personality

Several studies have attempted to distinguish otherwise matched groups of drug users from non users, on the basis of personality characteristics (e.g Craig, 1979a,

1979b; Lavelle, Hammersley & Forsyth, 1991; Hammersley, Lavelle & Forsyth, 1992).

Feelings of helplessness and a loss of self esteem have been attributed to continued drug use (e.g Kaplan, 1980; Kaplan, Martin & Robbins, 1982; Bandura, 1982; Fleming, Baum & Singer, 1984). This suggests that the user begins to lose control over their use, becomes driven by the desire for the drug in order to overcome withdrawal symptoms, and develops a perception of themselves as dependent. A loss of perceived control over their situation is likely to be correlated with low feelings of self efficacy in terms of being able to stop use (e.g Eiser and Gossop, 1979; Bradley et al., 1992). If a user indulges in self-blame for their drug use, they are more likely to accomplish change in terms of reducing or stopping their use (if that is their desire) if they show *behavioural* versus *characterological* self blame (e.g. Janoff-Bulman, 1979). Behavioural self-blame is when an individual sees the cause of their behaviour as lying in aspects of specific, controllable actions, whereas characterological self blame is directed at stable and uncontrollable aspects of an individuals character. The latter is likely to give rise to feelings of low perceived control over the behaviour and possibly helplessness, whereas the former allows perceptions of personal control and thus enhances the likelihood of behaviour change. However, self-blame of either kind is more likely to lead to the individual initiating change or responding to treatment than if blame is directed at others, or at external factors (e.g. Bradley et al., 1992).

In terms of drug use, it has been suggested that perceptions of being dependent, are likely to inhibit change, and in fact may deter the user from taking responsibility for their own behaviour. Many drug users justify other deviant behaviours in terms of the dependence-producing properties of the drugs they use (e.g. Weppner, 1981; Davies & Baker, 1987; Coggans & Davies, 1988; Hammersley et al., 1988, 1990). There is a wealth of evidence showing that heroin can be used occasionally without dependence occurring, and that even if dependence does occur, it is not necessarily

a permanent state (e.g. Kandel, 1980; Stimson & Oppenheimer, 1982; Blackwell, 1984; Crawford, Washington & Senay, 1983; Pearson, Gilman & McIver, 1985).

Behaviour

The mild effects achieved from cannabis use have been described as making its use a social phenomenon similar to that of alcohol use. This easy entry to social, albeit illegal, drug use is thought likely to bring users into contact with users of other drugs (e.g Cohen , 1972). There is also evidence that the earlier one initiates cannabis use, the greater the likelihood of subsequent drug use (e.g. Plant, Peck & Samuel,1985; Bagnall, 1991; Mills & Noyes, 1984) and even dependency problems (e.g. Kandel, 1978).

As one becomes involved in drug use and with other drug users, the risk factors for further use increase whilst the protective factors against such use (such as attachment to conventional institutions) decrease (e.g. Newcomb & Felix-Ortiz, 1992). Cumulative use (i.e more than one drug used concurrently) rather than as straightforward sequential use of one substance and then another, is a better predictor of experiencing negative drug outcomes such as dependency (e.g Mills & Noyes, 1984). To this end it is important for studies to assess current drug use rather than measuring the substances ever used.

Mills and Noyes (1984) in their study of sequential cohorts of American school pupils in 8th, 10th and 12th grade, found that the best drug predictors of current cannabis use were use of tobacco and alcohol. For current cocaine use the best predictor was cannabis use, and the best predictor of current heroin use was cocaine use. Cannabis use was also predictive of the use of pills and hallucinogens which supports the sequential type theories whereby cannabis is viewed as a "gateway" drug (e.g. Huba, Wingard & Bentler, 1981; Kandel, Kessler & Margulies, 1978; Single et al, 1974; Cohen, 1972). Newcomb & Felix-Ortiz (1992), instead of using current use (yes or no) as a predictor variable, as in the study by Mills & Noyes,

used frequency and quantity of use of different substances as predictors. In their study of late adolescents followed up into adulthood, frequency of alcohol use was predictive of the frequency of cigarette, alcohol and cocaine use 4 years later. Frequency of cannabis use predicted later polydrug use, and quantity of alcohol and cannabis use. (This recent study examines protective and risk factors for drug use over an extended time period. The analyses and results are not discussed fully here but are referred to in the final chapter when future directions are discussed).

In terms of continuing drug use it must be noted that drug using lifestyles can develop their own momentum. The longer a person has been taking illegal drugs the more likely he/she is to : a) be viewed by others, including by the police, as a drugtaker; b) to have learned to use drugs in response to a range of different situations; c) to have become involved in economically beneficial crimes and, d) to have friendship networks which are composed mainly, if not exclusively, of other drug users. In the light of these and many other possible factors, it is not surprising that many users find it easier to remain as they are rather than inflict upheaval upon many aspects of their day to day lives. In terms of the stages of change described by Prochaska and diClemente (1983; Prochaska et al., 1988) these users would be in a stage of "precontemplation" whereby processes such as self and environmental re-evaluation are unlikely to be occurring. Precontemplators are likely to be defensive about the need for change, although given the level of involvement many established users have in drug using lifestyles, it is possible that this defensiveness may arise from *fear* of change rather than as Prochaska suggests, denial of the *need* for change.

Explanations of drug dependence framed in learning theory constructs have pointed to the dominance of short-term rewards (e.g. a "high") over the potential of long-term or distant detrimental consequences (e.g. Levinson et al., 1983; Sutton, 1987; West, 1989). This would fit with the description noted above of how difficult it often is to decide to affect change because the short term rewards of drug use such

as social interaction may outweigh the perceived risk of health threats. Decisions to change are not solely based on weighing up the benefits and costs of drug use, but also involves individual cognitions and attributions as alluded to earlier.

2.3 Methods of Investigating Drug Use Change

The use and misuse of illegal substances pose special problems for researchers. Illegal or "deviant" behaviour is invariably harder to investigate than legal or commonplace activities, although these too can sometimes be difficult. Most illegal drug use is private, often furtive, and therefore special methods sometimes have to be adopted in order to access groups of people who use such substances (e.g. Morrison, 1988). This section describes the variety of investigative methods which have been commonly employed. The study described in this thesis used the combined methods of face-to-face interviewing with non-participant observation, within a non-randomly selected group of regular illicit drug users. The methods adopted were those deemed appropriate for this particular study. Random population sampling is a poor way to recruit a study group of drug users in a single area, and would fail to identify adequate numbers of persons involved in very low prevalence behaviours such as heroin use.

2.3.1. Prevalence studies

Surveys

The usual way of obtaining prevalence estimates of any given behaviour is to carry out representative population surveys (not necessarily national, often local), although few have been carried out with a representative sample of the general population. Exceptions include the General Household Survey conducted by Miller and her colleagues in the USA annually since 1972 (Miller et al., 1983), and the surveys conducted by the Office of Population Censuses and Surveys (OPCS) in Britain (OPCS 1980, 1984, 1986) . The British Crime Survey (1981) found that

16% of 20-24 year olds in England and Wales, and 19% of those in the same age group in Scotland, had used cannabis at some point (Chambers & Tombs, 1984; Mott, 1985).

The few British representative surveys of drug use among specific populations, primarily school or college samples have consistently found that although relatively high numbers of youths have, at one time, tried illicit drugs, the substance usually referred to is cannabis. Furthermore the percentage of current users is far smaller than the percentage who have ever tried cannabis. Cross-sectional surveys of school or college samples have been increasing in the UK since the Seventies (e.g. schools- Pritchard et al, 1986; Swadi, 1988; Bagnall, 1988; Coggans et al, 1989; schools and college - Parker, Bakx & Newcombe, 1988). Cohort studies are more useful however in that a group of adolescents can be followed into adulthood. Studies of this type, at least in Britain, are rare, in part due to the problems of finding funding for large scale longitudinal surveys. One exception is a study of young people attending school in Lothian Region, Scotland, which encompasses the countrys' capital city, Edinburgh (Plant, Peck and Samuel, 1985). This study followed a cohort of 15-16 year olds for a period of ten years (Bagnall, 1991) (see Chapter One).

It is important for studies not just to report the "ever used" figures but also to indicate the level of current or regular use, since "ever used" tells us nothing about the *current* situation regarding prevalence of what is considered to be a problem behaviour.

School surveys are advantageous in that data from a large number of respondents can be collected at one time owing to the development of pre-coded self-complete questionnaires which can be handed out to large groups in classrooms. This obviously reduces the cost per person of obtaining reasonably detailed information, when compared to studies that rely on one-to-one interviewing. Self-completing questionnaires in a classroom situation also gives respondents a greater feeling of

anonymity and this may in turn limit non-response to more sensitive items. There are however several major drawbacks to school-based sampling: firstly they exclude those pupils who have left school early, i.e. on their 16th birthdays; secondly they miss those individuals who are playing truant or are otherwise absent; and thirdly they require the use of self-completed questionnaires which limit the use of complex filter questions and or branching questions which delve for further details. The second drawback named here is likely to be the most serious. Many studies both in the UK and elsewhere have pointed to the relationship between delinquency, truancy, and the use of illicit drugs (e.g. Johnston, O'Malley & Eveland, 1978; Jessor & Jessor, 1978; Kandel, 1978; Pritchard et al., 1986; Swadi, 1989; Stenbacka et al., 1992). It is likely that those absent are more likely to be involved in illegal drug taking and thus their omission may bias the study findings towards lower than actual prevalence figures for that age group.

School-based studies usually also require parental consent for pupil participation and this can lead to subject loss without reasons for their exclusion being made available to the researcher. Is it because parents do not want their child to hear about drug use; is it because the parents have been, or are drug users themselves and fear their child could disclose this; or is it simply because the parent does not see the relevance of research studies to their child's education? In the Jessors' study of school pupils in Boulder, Colorado, 42% of parents withheld their consent. No reasons were detailed. This is a further limitation of school based surveys which is often not acknowledged in research reports.

Self-report measures themselves have been questioned in terms of validity and reliability, however the current consensus appears to be that self-reports of drug use are both reliable (e.g. Collins et al, 1982; O'Malley, Bachman & Johnston, 1983; Barnea, Rahav & Teichman, 1987) and valid (e.g. Johnston & O'Malley, 1985; Benson & Holmberg, 1985).

People may be likely to forget the specific details of past events and so retrospective reports of frequency or quantity of substance use should not be taken as an exact measure. Rather, they are best used as a means of drawing comparisons, for example, between the reported frequency of an individual's use of one substance compared to another, or the quantity reported to have been used in one situation as opposed to another. Exact measures may not be possible to obtain, not necessarily due to the respondent deliberately under-reporting, but due to a simple memory lapse. It is also possible however that memory, or a perception of what is the " best " answer, may lead to over-reporting, for example an individual might overstate the amounts of street-drugs they " *need* to have to avoid withdrawals " to a doctor, in the hope that they will then receive a larger quantity of prescribed, clean substances, such as Valium or Methadone. Some of the younger users in this study appeared to over-report the amount of drugs they took in order to give the impression of being a " real " drug user - there was a high value placed on " street-cred(ibility) ", and this came from being involved in as many " deviant " acts as possible; it became almost a competition. This is supported in findings from a study of heroin users conducted by Weppner (1981) where he concluded that having a heavy heroin habit was often seen as a sign of status, rather than one of weakness.

Drug indicators approach

This strategy enables identification of the nature and extent of drug use in specified geographical areas, by carrying out searches of available and related statistics gathered from a variety of sources. Conducted at different time points such methods would allow monitoring of trends and patterns of drug taking. Sources of " indirect " indicators used in two British studies using this approach included Home Office statistics on the notification of addicts and mortalities; police data on arrests for drug offences and seizures of controlled drugs; accident and emergency admissions identified as drug-related; drug takers receiving psychiatric services; cases of

Hepatitis and HIV infection; and data collated from prescriptions issued for controlled drugs (Hartnoll et al., 1985a; Haw , 1985; Haw & Liddell, 1987).

The main limitation of this kind of approach is that due to its initial reliance on official statistics, the emerging prevalence and incidence figures tend to be of those at the more extreme end of the drug using spectrum, e.g. those receiving treatment. Hartnoll and his colleagues therefore suggest that on the basis of these indicators, more precise information could be gathered by other means such as by interviewing individuals working in relevant areas such as the police, probation, youth workers or drug agency workers , and by carrying out fieldwork which involves interviewing drug users themselves.

2.3.2. Studies of specific populations

Specific population studies tend to focus either on non-random samples of known drug users, such as those undergoing treatment for drug dependency (e.g. Blumberg, 1981a; Stimson, 1973; Stimson, Oppenheimer & Thorley, 1978; Stimson and Oppenheimer, 1982), or on groups of individuals thought to be "likely candidates" for drug use, such as prison inmates, or people living in "deprived" neighbourhoods (i.e. with high unemployment, few amenities, etc).

Clinic samples

Obviously drug users undergoing treatment as in-patients are more accessible than drug users either receiving out-patient treatment from a medical practitioner, or those not in contact with treatment agencies at all. However, findings from these studies can not be extrapolated to the wider population of drug users, since in the main, it is drug users who acknowledge that they have a "problem" that present for treatment, or who have been referred by their doctor as a result of physical or psychological problems resulting from heavy and persistent use. Such users are obviously not representative, however very useful information can be obtained relating to the nature and history of use amongst those individuals that have reached

the stage where they need professional help. Case studies also help to illustrate the heterogeneity of drug users and their experiences, which is useful both for treatment and prevention efforts.

Criminal offenders

It has been shown that drug use of varying forms occurs in prison (e.g. Hammersley & Morrison, 1987; Shewan & Davies, 1992) although the incidence is unlikely to be related to that found in the general population. Drug use in prison is just that: drug use under a particular set of circumstances, which for some individuals may have existed as a behaviour pattern prior to incarceration, and for some it may continue beyond prison. It is not however possible to extrapolate such results to drug users not imprisoned. Such studies are useful, however, in determining what steps need to be taken within the prison system as regards education, treatment and prevention of drug abuse.

2.3.3. Observation studies and the use of " snowballing "

As stated at the beginning of this section, most illegal or illicit drug use is private, even secretive behaviour and so special methods may be necessary in order to investigate those involved in it. Two non-random methods exist which have particular merit in gathering information about illegal drug use in the community and these are the use of "snowballing" as a method of contacting such individuals, and observation. These methods have been employed in this study and are therefore described in more detail in the methods section of the next chapter (Chapter Three).

Snowballing

An early study of criminals using this method was carried out by Polsky (1969) who describes how :

" In my experience , the most feasible technique for building one's sample is "*snowballing*" : get an introduction to one criminal who will vouch for you with the others. (it is of course best to start at the top if possible, that is, with an introduction to the most prestigious person in the group you want to study. " (p 129.)

Polsky additionally points to the need for the researcher to appear non-judgemental about the behaviours of the group he/she is accessing.

Observation

Observation simply means to watch or take notice of, which is an ethnographic technique commonly used by anthropologists (e.g Malinowski, 1929; Mead, 1928) in their study of other human cultures. Behaviour is observed in its natural setting with the aim of learning through observation about the rituals and interactions involved in the performance of certain activities. In relation to studies of drug users Becker pointed out ;

".. we do not have enough studies in which the person doing the research has achieved close contact with those he studies, so that he can become aware of the complex and manifold character of the deviant activity (1963, p 168).

This statement continues to have validity today.

Observers therefore not only learn about the context in which behaviours occur but also about the social interaction of the subjects and the meanings and functions of the behaviour(s) in the eyes of those performing them (Morrison, 1988).

Observation as a method of investigation is therefore very different from the approaches described earlier such as wide scale surveys, or experimental studies, in that behaviour is systematically inspected with the goal of understanding it without any intentional manipulations of either subject or environment. (Observation is discussed further in Chapter Three).

2.4. Summary of Changing Patterns of Drug Use

It is concluded that there is little research evidence relating to explanations of changing patterns of illicit drug use. The majority of studies have either aimed to identify the precursors of drug use or its consequences such as criminality or dependence. However, within the literature there emerges a clear picture of the complexity of aetiological factors that combine to facilitate drug use in the first instance, and these factors have been shown by several studies to play a role beyond initiation.

2.4.1. The influence of peers

The failure to find definitive personality traits characteristic of drug "addicts" led to a search for further influences and, in keeping with personality research in general, concluded that personality interacts with both the environment and the perceptions and cognitions about what is acceptable or non-acceptable behaviour (Fazey, 1977). The upturn in heroin use witnessed in Scotland, particularly Edinburgh, in the early 1980's has been attributed to a dramatic rise in heroin availability on the black market and a large existing population of regular users and injectors of barbiturates (e.g Robertson, 1985). However, availability is an insufficient explanation in that many regular users of a variety of substances from cannabis to barbiturates did not become heroin users. Other factors have to be conducive to use, such as the perceptions an individual holds about a new drug , (for example, will it be dangerous? Will it produce an effect that he/she desires?). These perceptions are shaped by significant others around the individual, their family and their peers.

The role of the peer group has been shown to be of great importance not only in the initiation of drug use, but also in its continuation, and possibly in its cessation (e.g. Swadi & Zeitlin, 1988). As one moves through adolescence and into adulthood the

normative behaviour of peers becomes a more salient model than that of family or parents. The individual is unlikely to be forced to try a new drug but may receive subtle pressure from the peer group especially if other members are agreed that they want to try it. He/she then has to conduct a sort of cost-benefit analysis before deciding whether to go along with his peers or to risk their derision if he allows his negative view of the drug to win.

Drug using groups have their own set of unwritten laws about what is acceptable to them and about which behaviours they will reinforce and which they will not. Support for some forms of use may be high whereas for other forms, for example injecting, group support may be low.

2.4.2. The need for further studies

In order to gain a fuller understanding of the influences upon young people who continue to use illegal drugs over several years and the changes that may occur in the nature and extent of their use, more in-depth studies that utilise combined methods of quantitative data collection and observation and interaction with users in their own settings, are much needed.

CHAPTER THREE : RESEARCH AIMS, DESIGN AND METHODS

3.1. Aims and Hypotheses

3.1.1. Aims

This research study was initiated to assess the nature of illicit drug use amongst individuals interviewed at two time points in order that factors influencing changing patterns of drug use behaviour could be identified. The study was designed to accomplish five main aims which are summarised below:

a) To monitor changing patterns of psychoactive substance use amongst regular illicit drug users and to attempt to explain any change found in terms of social, psychological or personal factors.

b) To examine drug using lifestyles and to assess the meanings and functions of drug use within identified social networks.

c) To ascertain which patterns of drug use are associated with the experiencing of adverse consequences of use and to assess the perceived seriousness of such consequences to drug users.

d) To ascertain which patterns of drug use are associated with making contact with helping agencies and examine the functions individual users perceive helping agencies to have.

e) To explore the impact of HIV infection on the drug and sexual behaviours of both injecting and non-injecting drug users, and to examine behaviour change in the light of any increased real or perceived health threats.

In order to achieve these aims it was necessary to choose a group of individuals susceptible to change; therefore respondents who were already using drugs of varying types and with varying frequencies were targeted. It was predicted that,

potentially, change could occur in any direction i.e upwards or downwards. A random representative sample was therefore neither necessary nor sought.

3.1.2. Hypotheses

There were 4 main hypotheses to be tested :

1) Regular users of different illicit drugs will display different levels of involvement in drug using lifestyles.

2) The extent of involvement in drug using lifestyles will be related to changes in drug use over time. Those that are most involved in drug use at first interview are **least likely** to remain the same in terms of their drug use, when reinterviewed.

3) In addition to involvement, different types of behaviour change are likely to depend on any consequences that arise from use. If drug use causes adverse consequences for the person, drug use may decrease. Alternatively, if drugs are regarded as a means of coping with problems, drug use may increase when problems arise.

4) If level of involvement and consequences of use are not found to explain change, cognitions such as perceptions of dependence and desire to stop, or social and demographic factors such as age, sex and levels of social support at first interview may provide an explanation.

3.2 Design and Methods

3.2.1. A prospective study

In order to assess change it was essential to design a prospective study whereby data would be collected at two time-points, 18 months apart. Many studies of drug use have relied purely on cross-sectional data where respondents are assessed at one time point only and report earlier behaviours retrospectively. Cross-sectional data may be used to assess associations between variables at one point in time. This study , by adopting a prospective design, is better equipped for making assertions of

causality between variables measured at initial interview and those measured subsequently. It was anticipated that the drug using "careers" of the individuals recruited to this study would be monitored as closely as possible, by using a combination of methods.

3.2.2. The use of snowballing and observation

Snowballing

"Snowballing" or "networking" is a non-random technique of obtaining access to individuals that may otherwise be difficult to reach. As described in Chapter Two (Section 2.3.3.) the intention of researchers using this technique is to establish relationships of trust with one or two "key" figures who are involved in the behaviour under study. These key persons serve to introduce the researcher to persons of their acquaintance who are also involved in the relevant behaviour(s).

A study of drug users and drug dealers in Costa Rica (True & True, 1977) found that initially many people showed reluctance to talk to the researchers until the name of their key contact was mentioned, at which point some subjects left to confirm that the key person would vouch for their trustworthiness , and they then decided to co-operate. Key contacts therefore legitimise the researcher's presence and may make easy his/her access to otherwise inaccessible groups.

However "snowballing" does elicit non-random study groups which prevents researchers drawing generalisations about their findings to other populations. The advantages of such an approach do however outweigh the limitations. For example, it would otherwise be extremely difficult to, a) reach drug users in their own community rather than in a clinic or general practice surgery, b) make contact with users who are not in contact with helping services and c) gain a level of non-judgemental "friendship" that allows the researcher to spend several hours a day with drug using groups as they carry out their daily activities. Obviously snowballing by means of introduction by someone already known to the drug users

in a particular location is an optimum solution. There are biases in most methods of respondent recruitment as outlined in Chapter Two; those of "snowballing" were deemed acceptable to the nature and objectives of this study.

Prior to the commencement of data collection several locations had been identified by the author as potential "snowball" areas; these included a street based, non-statutory unfunded drop-in service for drug users; a day centre set up primarily for ex-offenders but with a cafe and recreational facilities open to the general public and known to be frequented by unemployed youth; and a non-statutory funded drugs advice centre. None of these places had any clinical input and all were informal in nature, i.e appointments were not required in order for "clients" to attend, case notes were neither strictly required nor maintained, and in relation to the day centre, drugs work was not part of the social workers' remit.

As noted by Power (1989):

" it is advisable for the researcher to have carried out some work with drug users in an agency setting before embarking upon qualitative research with those not in contact with services " (p.47).

This was the rationale behind the selection of the three aforementioned locations since a) the author had had contact with all these places whilst conducting a previous research project and b) by going to these places the opportunity to meet drug users in a position to introduce the author to other drug users not in contact with such centres, was heightened.

Observation

It must be noted that the mere presence of an observer who has declared his/her identity as a researcher *may* influence the behaviours performed in their presence. It is therefore most important that researchers decide at the outset of their study whether or not they are to be overt or covert about their identities. Adler (1985), in her study of drug dealing and smuggling in Southern California, concealed her true identity at the outset of the study, only revealing her research role once she felt she had gained the trust and friendship of those she was observing. However, this is a

risky practice and certainly one the author was ethically uncomfortable with. In most cases it is probably advisable to be honest about one's role at the outset rather than risk reprisals at a later stage (Morrison, 1988; Power, 1989). Following an ethnographic study of heroin users, Agar, proposed a means of developing good relations with potential subjects which he called a " one-down " approach (1976). This approach simply entails the researcher initiating contact with subjects and giving the impression of being a novice, thus allowing the respondents to lead and inform the researcher. This respondent-directed approach is, in Agar's view, better than taking a " one-up " approach where the researcher directs the relationship on the basis of a priori assumptions he/she has made about the group under study and the variables he is interested in. (This kind of relationship is somewhat arrogant and affords a high status to the researcher's knowledge where often the subjects will actually know more!). The final stage may be " even-up " where both the informant and the researcher listen, respect and learn from each other. Preble and Casey used a "one-down" technique in their study of heroin users and as a result was one of the first studies to describe dependent drug users *not* as social or psychological failures, but rather as active, dynamic, and often intelligent members of a well-defined social group (Preble & Casey, 1969). In the current study the author adopted a " one-down " approach at the outset and then as relationships with drug users developed and knowledge of the local drug scene increased, a more " even-up " approach was taken.

One flaw of observational studies that rely on observation alone, rather than combining it with semi-structured interviews, is that one can only measure what is observable, and therefore the researcher misses out on gathering information about private feelings, attitudes, beliefs or cognitions. Jahoda, Lazarsfeld and Ziesel (1972) point out the importance of using combined methods and outline four

principles :

" 1) For any phenomenon one should have objective observations as well as introspective reports.
2) Case studies should be properly combined with statistical information.
3) Contemporary information should be supplemented by information on earlier phases of what is being studied.
4) "Natural and experimental data" should be combined. By experimental I mean mainly questionnaires and solicited reports, while by natural I mean what is now called " unobtrusive measures" - data derived from daily life without interference from the investigator." (p. xvi).

Although the above may be the ideal, only a few studies have achieved it. Some studies have relied solely on the researcher being able to recall the information obtained over the events of a day, the details of which are recorded in what is referred to as a "diary" (e.g. Burr, 1983, 1984). Polsky (1969) points out that to keep faith with ones' subjects it is important to write notes vaguely, or at least without the use of real names in order to preserve anonymity. A limitation of this method alone is that the researcher is subject to memory limitations and distortions, and he/she may unwittingly "filter" the days events as they occur and process only information thought relevant to the study (Plant, 1980). Other British studies have combined the "diary" method with a detailed questionnaire which is either open-ended or pre-coded (e.g. Plant, 1975; Hartnoll, Daviaud & Power, 1987). These studies can provide both hard, quantitative data, as well as qualitative descriptive material which adds "life" to factual reports as well as useful information regarding conversations and events which have occurred in the presence of the researcher. Furthermore combined methods allow for consistency checks of information received. For example a respondent may report that they are no longer involved in a certain behaviour, (e.g. the practice of needle sharing), then they may in fact proceed to do so in a later situation whilst being observed. Combined methods were utilised in this study.

Finally, there are different kinds of observational techniques, between which the researcher must decide before embarking on their fieldwork. The first of these is

"participant observation" which doesn't necessarily mean that the researcher has to actively engage in all the activities observed, but rather that they totally immerse themselves in observing a social situation and only become a researcher after the event, when the proceedings are noted.

An alternative to "participant" observation is that where the researcher does not participate in any activities but simply observes. This however is not easy in practice, since simply by spending so much time in the company of drug users, some participation is almost inevitable, for example in helping look after children, or assisting in form-filling, or accompanying to doctors appointments. Giving something "back" to respondents in the way of company and assistance does not however necessitate taking part in illegal activities . Patricia Adler (1985) observes that such an approach can lead to legal and ethical difficulties for researchers witnessing criminal events, and that boundaries for what they are prepared to be present during have to be set at the outset.

The author started making contact with drug users in an open and informal way which allowed friendships to develop without her ever disguising her role as a researcher. For example, having negotiated access to the non drug-related day centre, the author simply sat down with a cup of coffee at a table located near a pool table around which a group of young males were congregated, and found that being an unaccompanied female definitely drew attention! Within ten minutes a young man approached her table, and, introducing himself as "Sniff"[1], asked what she was doing there. The author told him that she was working at the University doing a study of drug use in Edinburgh and was looking for people who used drugs in order that she could have a chat and then do an interview with them. Sniff asked several questions about the work such as "Why?", "Who gets to know the results?"

[1] Throughout this thesis the use of pseudonyms is employed to protect the identity of all those contributing to this research.

and "Do we get paid?".

It was explained that it was a confidential study with the information provided only being seen by the author, and that names would not be recorded on the interview schedule in order to protect the identity of anyone agreeing to take part. Sniff was told that the study was going to examine what drugs were being used and by whom, and the reasons people have for first trying drugs and for changing their patterns of use over time. He was informed that a second interview was scheduled to take place a year and a half after the first and therefore names and contact addresses would be required but would be recorded on a separate sheet of paper. Finally, he was informed that respondents would not get paid for participating but that they would probably be bought a cup of coffee during the course of the approximately one hour interview.

The author had previously decided, on ethical grounds, to be open about her intentions as a researcher. In addition, she considered her abilities to remain "covert" over many months of fieldwork, and the value of such covertness, to be limited and potentially dangerous.

Within minutes of this introductory conversation Sniff had called over a few acquaintances saying " They all use drugs so they'd be good for you to talk to."

Sniff in fact turned out to be an invaluable first contact since it transpired later that one of the people he introduced to the author on that first day was the main supplier of cannabis and occasional tranquillisers to a large group of young people.

In the other locations snowballing was initiated along the same lines, but being identified drug centres it had been expected that the majority of attenders would be drug users and the author could thus approach individuals often without the need for an introduction. Snowballing therefore proceeded as a result of the relationships the author built with users herself, rather than solely as a result of being led from one user to another by a key contact.

3.2.3. The use and advantages of observation.

As described in Chapter Two, several studies of illicit drug use have employed observational techniques as either an adjunct to quantitative data collection, or on its own. The distinction between participant and non-participant observation is of paramount importance since the author believes that the level of detachment maintained can surely exert an influence on the nature of the data collected.

This study employed participant observation in as much as the author was often present during illegal activities, however the author was non-participant in terms of her not being actively involved in any illegal act. Eight hours of fieldwork a day, on four out of five weekdays (and the occasional weekend), for a period of nine months, enabled the author to maintain a close level of contact with the user networks affiliated to the study. The author, as a result of the time spent in the field, was often in the company of geographically transient drug users with whom it was rarely possible to obtain an interview prior to their departure from the area.

In the context of this study observation entailed watching and taking notice of behaviour as it occurred in its natural setting. The author remained alert at all times to current happenings by listening openly to conversations, watching actions (sometimes more covertly) and generally was in attendance during the buying and selling of stolen goods, drug taking and drug dealing, as well as being present for the usual activities of living such as eating, shopping, and doing the housework!

3.2.4. The development of a questionnaire

Following examination of existing research in this area sample questionnaires were requested from authors of several key studies (e.g. Hartnoll et als' Drug Indicators Project; 1985; Parker, Bakx and Newcombe's study of heroin use in the Wirral, Merseyside, 1988) and the author met with several respected researchers to discuss the objectives of her study and how best to elicit the types of data required (e.g. Burr, 1983, 1984; Jamieson, Glanz, and MacGregor , 1984).

An interview schedule was designed which adapted existing sets of questions used by the Alcohol Research Group (where the author was employed) in their studies of alcohol use (e.g a weekly drinking diary, questions relating to the context of use) to the present study. The areas to be addressed were as follows : what were the background characteristics of regular illicit drug users; what drugs were currently being used , how often, with whom and for what reason; what was the nature of drug using careers; what were the motivations for initiations and changes in patterns of use; were drug users involved in any criminal activities and if so had this pre- or post-dated drug involvement; what adverse consequences of drug use had been experienced and had the advent of HIV infection had an impact on modes and levels of use; and, finally, were drug users in contact with helping agencies? If so, were they helpful? If not in contact with any agencies, were there any particular reasons ? Having developed a working version of a questionnaire addressing these topics, the author pre-tested it on colleagues who adopted the roles of illicit drug users. This led to only minor revisions in the wording of some over-complex questions, after which a pilot study was conducted.

3.2.5. The pilot study

The main aim of carrying out a pilot study is the refinement of an interview schedule. There are inevitably errors in the initial phrasing of questions so that they may not always be understood by the proposed study population. It is therefore normal to pre-test the schedule on a sub-set of the proposed study group.

For the purposes of this study three local agencies, where it was predicted that young people (16-30 years old approximately) would be found, were contacted. Two of the agencies contacted were community centres which provided day and evening activities for unemployed and school-aged youth. The third agency was a non-statutory drugs advisory and drop-in service.

Five interviews were conducted in the drugs agency and six were conducted between the two community centres. Interviews were obtained on a consent basis with standard assurances of confidentiality given. Interviews were conducted on a one-to-one basis on the premises where contact was made.

The instrument was mainly pre-coded, although notes were taken in the margins to elaborate on the responses where required and to provide the author with more detailed information to take into account when revising the schedule for the main study.

Interviews took between 60 and 80 minutes, depending on the level of substance use reported and on the personality and verbosity of the respondent.

Results

Nine respondents were male and two were female. The mean age of respondents was 24 years (range 19-31). Nine were unemployed. Due to the small number of respondents recruited for this pilot exercise, no detailed analyses were carried out. Those interviewed showed quite a diversity of drug use as shown in Table 3.1 where respondents are sub-divided into those contacted at the identified drugs service and those not.

All eleven respondents had, at some time, drunk alcohol. The frequency of use over the 12 months preceding interview ranged from 15 to 365 days. All but one respondent smoked cigarettes on a daily, or almost daily, basis. Cannabis was the most commonly used illicit drug, albeit rarely in 3 cases. Three of the drug agency group were receiving tranquillisers and/or opiate based painkillers on prescription, and all five of this group were current injectors.

Table 3.1 : Illicit drug use amongst pilot study respondents

Substance	Drug agency n = 5	Non-drug agency n = 6
Cannabis	5 (2 rare)	3 (1 rare)
Tranquillisers	4	1 (1 rare)
Amphetamines	2	1 (1 ex-user)
Opiates	5 (1 ex-user)	0
Solvents	0	2 (1 ex, 1 rare)
Other (e.g. LSD)	0	2 (1 ex, 1 rare)

This brief summary indicates that the pilot study contacted light, heavy and ex-users of illicit substances. This enabled the author to use all sections of the interview schedule to varying degrees as each section was relevant to at least one individual, and therefore feedback was received on all issues covered.

It was encouraging that only one respondent failed to complete all the relevant sections, this being a heavy opiate user who claimed to have a doctors' appointment and therefore left after forty minutes. In general, cooperation was high and little resistance to the more personal questions relating to HIV/AIDS and sexual behaviour was met.

Feedback received included telling the author "street" names for various substances, and pointing out that the schedule was rather long! Most said that they had found the interview an interesting exercise with many stating that they had never really sat down and thought about their levels of use of alcohol or other substances. It was very obvious to the author, however, that particularly for those involved in illegal activities such as drug selling, that the building up of trust and convincing potential respondents of confidentiality, was going to be of paramount importance if access to and movement within drug using groups was to be successful.

Several amendments to the interview schedule were made as a result of this pilot exercise although the majority of changes were minor and related to wording.

Several questions which had initially been open-ended were later pre-coded after the range of received and anticipated answers had been categorised. Options such as "can't remember", "don't know" and "won't say", were added to most questions. The list of substances included in the drug use chart was amended and updated to include substances of use/misuse, previously unacknowledged. This primarily related to the inclusion of a wide range of licit psychoactives within the tranquilliser and opiate groups. General practitioners as a source of drugs was added to the original list of options since the author had previously not appreciated the frequency with which the prescribing of psychoactives to primarily injecting drug users, occurred.

Data obtained from the eleven drug users who participated in the pilot study were **not** included in the main study.

3.2.6. The interview schedule

The schedule was designed to collect too many data rather than too few, and although the pilot resulted in several questions being altered or removed, more questions were, in fact, added. Some of the information collected has not been employed in the main analyses but is presented in Appendix Two.

The instrument focussed on the following nine areas :

1. Background details : Age, sex, marital status, relationship with family, socioeconomic status of self and parents, employment past and present, details of unemployment, education, personal supports.

2. Financial details : estimated weekly income from work, Social Security and other legal and illegal activities (e.g. borrowing, gambling, theft, drug selling); estimated weekly expenditure on accommodation, food, legal and illegal drugs, activities, transport etc.

3. Drug use history : Fourteen drugs or categories of drugs were included here : Alcohol, tobacco, cannabis, tranquillisers, barbiturates, LSD, psilocybin (magic mushrooms), amphetamines, heroin, methadone, other analgesics, Diconal (dipipanone) and Palfium (dextromoramide), cocaine, and solvents.

Respondents were asked for each drug/drug category :

a) Have they ever taken this drug, licitly or illicitly?

b) How many days have they taken it in the previous week?

c) How many days have they taken it in the previous month?

(Using the weekly figure as reference the respondent and interviewer calculated an appropriate number to reflect consumption in the preceding 4 weeks (a 28 day month was used for simplicity)).

d) How many days had they taken it in the previous 12 months ?

(The monthly figure was used as reference here and the respondent was reminded to take into account any periods of hospitalisation or imprisonment).

Details of up to two drugs that the person used to use regularly but had not taken on more than twelve occasions in the preceding 12 months were also taken when relevant (e.g. how often was this drug taken, for what length of time, how long ago was this, and what were the reasons for stopping use?).

4. Detailed history of illicit drug use

The next section was used to obtain further details of up to four substances used regularly in the 12 months preceding interview, excluding here alcohol and tobacco. Questions covered the following issues : First use - age, company, location, source, amount, cost, mode of use, effects, and reasons for taking ; Last occasion of use - when, company, effects etc ; Typical occasion - company, location, source etc ; What would the respondent do if could not get any ; Feeling of needing drug daily ; Longest time gone without and reason(s) for this ; Reason for continued use; Problems experienced as a result of use ; Hypothetical reason to cease use permanently ; Whether would encourage another individual to use ; Percentage of

friends also using the substance : Family members drug use ; Family knowledge of own use ; If considered self to be dependent and if so what action had been taken ; If became dependent in the future what action would they take.

Identical questions were repeated for up to four drugs/drug categories.

5. HIV/AIDS : Intravenous or other injecting behaviour, frequency of sharing of injecting equipment, reduction in sharing, use of injecting equipment exchange schemes, worry and concern about HIV infection and AIDS , perceived likelihood of infection, current HIV status, change in drug use behaviour, change in sexual behaviour, sexual orientation, knowledge of HIV infected persons, reactions of others to their antibody positive status (if applicable), opinions of HIV and AIDS-related educational and publicity campaigns.

6 Use of services : Knowledge, usage and opinions of local services, opinions of what respondents felt was required in terms of service provision.

7. Alcohol use : As for illicit drugs, i.e. details of first use, most recent use; weekly diary of units of alcohol consumed; problems resulting from use, friends and family use, whether perceived self to be dependent or not and any action taken.

8. Cigarette use : As for alcohol and the illicit drugs although in less depth.

9. Criminal history : Age at first police contact and offence, details of two most recent court sentences, proportion of crimes committed under the influence of alcohol and/or illicit drugs, perceived effect of alcohol and illicit drug consumption on criminality

3.2.7. The interviews and response rate

Fieldwork commenced in December 1987 and stopped in August 1988. The author had originally hoped to recruit up to 100 regular illicit drug users to the study over a six month period, on her own. However, although it proved relatively easy to locate and make contact with drug users informally, it was often difficult to "pin them down" to an actual interview. Many hours were spent in the company of drug

users, in a variety of locations, but quantitative data in the form of a completed formal interview schedule were not always forthcoming. In some instances the author had known individuals for several months before an interview was conducted. This time was not however wasted in that detailed notes and insights into drug using lifestyles were acquired. Nonetheless, in order to facilitate the obtaining of "hard" data it was decided to extend fieldwork a further three months and to recruit and train three additional interviewers. This was done in June 1988.

Potential interviewers were approached by the author and asked if they would be interested in part-time fieldwork on behalf of the author's place of employment, the Alcohol Research Group at the University of Edinburgh. These potential interviewers were in two instances professional acquaintances of the author, and in the other two instances current workers in local youth centres.

The recruitment interview consisted of approximately four hours when :

a) the author discussed the study's aims and methodology;

b) the author interviewed the potential interviewer;

c) the author acted as respondent and was interviewed by the trainee;

d) any problems in the style* of the trainees, or with the content of the schedule, or queries about the practicalities of fieldwork, were discussed.

The author then gave the trainees two interview schedules to begin with and they were requested to return these on completion so that they could be checked and feedback provided before confirmation of the temporary employment was given. At the end of this period, three individuals were provided with identity cards as proof of their acting on a temporary basis as an interviewer for the Alcohol Research Group.

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* The author was concerned that the interviewers employed would be relaxed in manner but alert; open-minded and non-judgemental, and possessed a detached but caring professionalism. The full implications regarding confidentiality and the potential worries about witnessing criminal acts were discussed .

The fourth individual chose not to proceed after the initial two interviews proved to be more time-consuming than anticipated. The interviewers were paid £5 per completed schedule plus any reasonable expenses such as bus fares, coffees for respondents etc.

At the end of the nine month fieldwork phase, 115 people had been contacted by means of snowballing and were interviewed. (Full details of the networks accessed are described in Section 4.1.3.) The author conducted 69% of these interviews. Interviewees were all currently resident in the Lothian region.

To qualify for interview potential respondents had to identify themselves as a regular user of either an illicit substance, or as illicitly using licit substances, such as solvents or prescribed drugs. " Regular " use was defined as " at least twelve times in the preceding twelve months ", for the purposes of this selection process.

The interviews

Initial respondents were contacted in a variety of settings from which the interviewers were then led out into the community - to cafes, bars and respondents homes. Interviews which were not conducted by the author were most commonly conducted in respondents homes.

Interviews were carried out in private, when possible, and on a one-to-one basis. The location of interview was agreed on by both the interviewer and the potential respondent. The decision as to whether or not an interview was carried out in the respondent's home was based on the length of time the interviewer had known the respondent and on the level of trust that existed between them.

Respondents were informed, usually at first contact, that the interviewer was conducting a study funded by the Scottish Home and Health Department (now the Scottish Office, Home and Health Department), to look at changing patterns of drug use in the community. However in many instances, particularly in the case of the author, potential respondents knew of her presence and role prior to any actual

verbal contact occurring. They were informed that, if they consented, they would be asked questions about their drug use history, their income and expenditure - including illegal costs and gains, their use of drug services and about issues relating to HIV and AIDS. They were told that this would take between 60 an 90 minutes and that all information given was held in the strictest confidence. They were further informed that it would be necessary to give names or pseudonyms and up to three contact addresses since a follow-up interview was scheduled to take place approximately 18 months later. It was explained that none of these details would be recorded on the schedule itself but on a separate index card which was, at this stage, shown to the potential respondents. They were assured that neither police nor agency staff (where applicable) or any other official, would be privy to any information given by them to the interviewer and that at no point in time would their identifiable personal details be publicised. All data related to respondents' identities were held in secure conditions during the fieldwork period. Thereafter these data were destroyed.

If the person consented it did not necessarily mean that the interview took place immediately, although this was desirable. Where this did not happen, the respondent was told on which day the author would be at each location and asked to return, or an appointment was made for either the same or a different location as negotiated. Sometimes, as stated previously, many weeks passed before an interview occurred even though many informal meetings and conversations took place in the interim.

The interview schedule (detailed in the previous section) was administered verbally with the interviewer clarifying questions as required. Respondents were told that notes would be taken of comments made during the course of questioning to enhance the more limited precoded responses. If they objected to this the interviewers were instructed to record only the specific responses which met with the precoded alternatives (responses which were not within the precoded selection

were recorded as "other" and in this case more details of the verbal response were noted, to aid later additions of new response categories if necessary).

The time it took to complete the interview varied greatly and depended upon a variety of factors. These included the ranges of substances used regularly. A cannabis only user generally took less time to interview than a multiple substance user. Interview duration was also influenced by the verbosity of accounts given by respondents. As a result it was not always possible to complete the full interview. In cases where limited time had been allocated by respondents with other commitments, or where it became obvious during the course of the interview that the respondent was not going to remain much longer, certain sections were prioritised. The priority areas were demographics, the drug history chart, details of the first and second most frequently used substance, the use of drug services, criminal history, and HIV/AIDS.

At the end of the interview, an informal conversation usually took place when respondents were thanked for their cooperation and asked whether or not they would be prepared to introduce the interviewer to " some friends or acquaintances who also use drugs of any kind ". If they were willing to do this arrangements were made and some details of the friends were taken. Many respondents took advantage of this time to discuss issues touched on in the questionnaire in a more relaxed manner, although remaining under the protection of confidentiality assurances. Such discussions increased rapport and the probability of further snowballing. Interviewers also recorded details of these conversations after leaving the interview location. On several occasions respondents at this time confessed to not having been completely honest in answering certain questions and therefore the schedule could be corrected according to the respondent's wishes. If, however, at a later date the interviewer learnt from conversations with **other** people, that inaccurate information had been provided, the schedule was <u>not</u> amended, although note was made of any new information.

Response rate

It is very hard to calculate a formal refusal rate since avoiding the location of the interviewer(s) or failure to return at an arranged time, were hard to quantify. The author met and spoke to over 200 drug users over the nine month period, and was in the presence of many more, albeit often only briefly. It was not always prudent to intrude upon an ongoing conversation, or a drug deal, or a drug using session, to inquire as to whether a person would agree to leaving the room to conduct an hour long interview.

Four respondents, when approached, refused to participate and approximately 30 others made vague agreements but failed to be seen again to formalise the arrangement.

3.2.8. The timetable

The author commenced this study on the 1st of May 1987 with the first phase of the study proceeding as outlined below :

May 1987 - November 1987	Review of existing literature on drug use in the UK, USA and Europe.Design of the interview schedule which was then pretested and piloted in the autumn of 1987. Establishing contact with local agencies and gaining co-operation regarding access to premises.
December 1987 - August 1988	Contacting and interviewing 115 illicit drug users. Recruitment and training of three additional interviewers in June 1988.
September 1988 - May 1989	Coding of data and collating of qualitative information. Data entry. Setting up of SPSSx control and system files on the University of Edinburgh Mainframe computer network (EMAS). Analysis of data using SPSSx. Publication and presentation of findings.

3.2.9. Data coding and analysis

Full details of the coding methods employed by the author are contained in Appendix Two; only the main body of coding information being presented here.

Drug use coding

One of the first tasks on termination of data collection was for the author to code the qualitative data obtained both from fieldnotes and from open-ended questions

contained in the interview schedule. This was done by a post-hoc examination of the content of often detailed responses and attempting to develop meaningful categorisations.

In terms of the frequency and nature of drug use, there was a large body of data relating to days per week, month and 12 months, of use of all the drugs assessed. A categorisation process was developed which excluded the use of alcohol and tobacco since the primary focus of the study is the use of illicit drugs. Frequency distributions were produced for all the illicit substances and on examination of these distributions it was decided to collapse the drugs into categories. Cannabis was used by all 115 respondents and therefore provided a baseline. The remaining drugs were allocated into one of three categories :

Tranquillisers: including barbiturates which were rarely used by only a small number of respondents.

Opiates: including heroin, methadone, diconal and palfium, plus licit prescribed opiates such as DF118's (dihydrocodeine) and Temgesic's (buprenorphine).

Others: including LSD, " magic " mushrooms (psilocybin), amphetamines, cocaine and solvents.

Individuals were then classified as having no use, low to moderate use, or high use of each category. For the purposes of this categorisation low to moderate use was defined as between 1 and 149 days of use in the 12 months preceding interview and high use was defined as a minimum of 150 days of use in the 12 months preceding interview. The author then arrived at four final sub-groups of drug use.

Sub-group One : Cannabis use only (low to moderate, or high frequency) n = 28.

Sub-group Two : Cannabis use (low to moderate, or high frequency) **plus** use of either or both "tranquillisers" or "others" (low to moderate or high frequency) n = 32.

Sub-group Three : Low to moderate opiate use with or without use of any of the of the other categories n = 28.

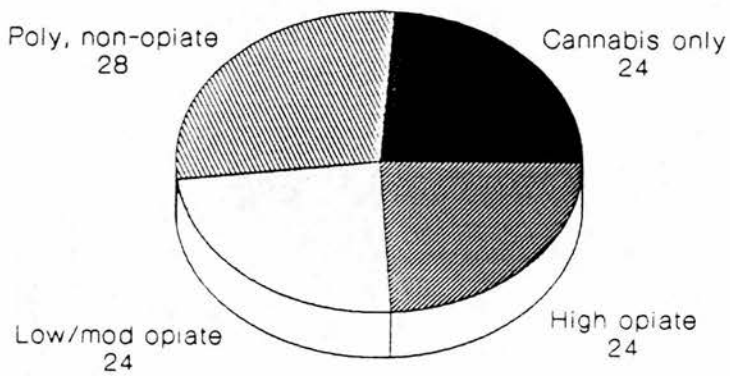
Sub-group Four : High opiate use with or without use of any of the other categories n = 27.

The decision to create two categories where opiates were used to varying degrees of frequency but where the use of other substances was irrelevant to the categorisation, was not an arbitrary one. There had been, during the 1980's, a great deal of publicity afforded to the addictive properties of the opiates and to the negative affects these drugs had on the lives of those who used them. Therefore the author created Sub-groups Three and Four where opiate use was an isolating criterion, but characteristics of use, problems of use, and the use of other substances within these groups could be compared with the two non-opiate using groups. There appeared to be two distinct patterns of opiate use within the study group; firstly there were those who used opiates on an infrequent, experimental or opportunistic basis or who used opiates regularly but for whom opiates were not the primary drug of use, and secondly there were those who could be described as "dedicated" opiate users, the

majority of whom had a history of heroin use and often of intravenous use. These latter users used opiates of varying sorts on an almost daily basis.

Figure 3.1 shows the percentage of respondents allocated into these categories and it is clear from this that 72% of this study group used drugs other than, but in addition to, cannabis.

Figure 3.1 :
Drug-using Sub-groups



Income and expenditure coding *

A variety of sources of income and expenditure were examined (see interview schedule in Appendix One for details). For analysis, certain measures were combined as follows :

Legitimate Income = pay + benefits + grants + renting + savings + financial gifts

Illegitimate Income = theft + fraud

Marginal Income = prostitution + borrowing + gambling + casual work + begging + charity

Drug Income = selling drugs

Legitimate Expenses = rent/mortgage + food/snacks + bills + household goods + clothes + loan/fines

Luxury Expenses = gambling + entertainment + hobbies + pets + alcohol + tobacco

Travel Expenses = transport costs

Drug Expenses = illegal drugs (included paraphernalia costs)

Total Balance = Total Income - Total Expenses

(Total Income = Legitimate Income + Illegitimate Income + Marginal Income + Drug Income; Total Expenses = Legitimate Expenses + Luxury Expenses + Travel Expense + Drug Expenses)

(* adapted from Hammersley and Morrison, 1988; Hammersley, Morrison, Davies and Forsyth, 1990)

Analysis

The University of Edinburgh main frame computer system (EMAS) was used for all computing. The coding of questionnaires was conducted by the Alcohol Research Group's trained coder and then cross-checked by the author prior to being submitted

to the University's data entry facility where all data was put onto magnetic tape in preparation for the author transferring it onto the Statistical Package for the Social Sciences (SPSSx). The author set up a detailed control file for all variables (exceeding 200) and created a system file for this data.

The statistical package employed in this study was SPSSx and analysis was conducted solely by the author with occasional advice from the Alcohol Research Groups' SPSS adviser (Mrs Jean Foster)

CHAPTER FOUR : DRUG USE AT WAVE ONE

As described in Chapter Three, one hundred and fifteen regular illicit drug users were interviewed in Edinburgh between December 1987 and July 1988. This chapter provides a general picture of these respondents, who they were, where they came from, what substances they were using and how they financed themselves.

4.1 The Drug Users

4.1.1. Who are the users? - demographic data

As in other British studies of illicit drug users (e.g. Jamieson, Glanz & MacGregor 1984; Giggs et al., 1989) the male to female ratio was approximately 2:1, with 79 males and 36 females being interviewed. The median ages of males and females was 24 and 24.5 years respectively although the standard deviations were high (6.44 and 7.26) and the ages ranged between 16 and 41 years. This is similar to the age range found in a similarly designed study carried out by Plant (1975).

Sixty-four percent (i.e. n = 74) of respondents described themselves as "single" although of these 35 (30%) were in a current relationship. Twenty-eight percent were either married or cohabiting and a further 8 percent were divorced or separated. These findings are similar to those of other studies of illicit drug users, for example Plant (1975) found that 70.5 percent were single, 17 percent were cohabiting, 9 percent were married (i.e. 26% in total). Marital status has been used in later analyses as one indicator of " social support " (Section 4.4). Although not specifically asked about the length of relationships, many of those respondents who were single but in a relationship seemed to practice serial monogamy ranging from several weeks to many months duration.

Employment status, education and other background characteristics

A study conducted in the Wirral (Cheshire) by Parker and his colleagues (1986) found that of all the social deprivation indices used, unemployment was the highest correlate of opioid use. Although the study described here is not solely one of opioid users, unemployment was found to be high. Forty-three percent (n = 50) of respondents were unemployed at the time of interview. This reflects the economic climate at the time of fieldwork when Lothian Region recorded an overall unemployment rate of 11 per cent, which increased to over 22 per cent in some localities, and even higher rates existed amongst those under 30 years of age (Lothian Regional Council, Department of Planning, 1988). Fifteen respondents had never worked and so the socioeconomic status (s.e.s.) of their parents was examined; eight respondents had working mothers with a median socioeconomic status of 5.5 (sd = 1.58) and of the thirteen working fathers the median socioeconomic status was 4.00 (sd = 0.65). Thus these respondents came mainly from manual or semi-skilled backgrounds. In contrast those respondents who were either currently or had previously been employed had a median socioeconomic status of 3.0 (sd = 1.37), thus were most commonly non-manual skilled workers. Those unemployed at the time of interview had a median s.e.s. of 5.0 (sd = 1.23), thus, like the never employed group, were predominantly from manual and semi-skilled backgrounds.

Educational attainment was low, with 46 percent having left school with minimal or no formal qualifications, prior to their 16th birthdays. (Although Scottish law requires persons to remain in school until the 16th birthday, many respondents reported long term truancy prior to this date).

Finally, respondents were asked whether they had ever experienced a prison sentence. Exactly half of this study group had served a prison sentence at some point in their lives.

This section has described a group of individuals who were predominantly male, with many being under-educated, unemployed and with a criminal history. The variations in these characteristics in relation to patterns of illicit drug use are elaborated in the forthcoming chapters.

4.1.2 Where did they come from? - geographic origins

As stated above, all respondents were interviewed in Edinburgh and were, in the main, resident within Edinburgh City boundaries. Respondents were requested to give details of their own address (current at the time of interview) plus that of a parent and/or close friend. This was primarily to facilitate follow-up interviews, however it also provides some useful demographic information. Some respondents gave a drugs service as the only contact point; sixteen respondents gave only the interviewer's name as a contact point although information from the interviewer confirmed that these respondents lived in the city centre.

Table 4.1 presents information relating to the postcode regions where respondents lived at first interview. Respondents were dispersed across Edinburgh city, although the City Centre, Leith, Muirhouse and Gilmerton were the main locales in which respondents lived. A fifth of the study group resided in Leith, a dockland area approximately 3 miles from the City Centre. Muirhouse is an area composed primarily of run-down Council estates, as is Westerhailes and Craigmillar. A study of problem drug takers who were receiving psychiatric services in 1979, found that three main areas were highly represented, Muirhouse, Gorgie and Craigmillar, with significant numbers also living in Leith and the City Centre (Haw and Liddell, 1987). Although this study can not claim to be representative it does show that areas other than those typically thought of as being areas of high drug use prevalence (e.g. Leith, Muirhouse, Craigmillar), contain " pockets " of illicit drug users. It must be pointed out however, that the majority of the City Centre users were regular cannabis users whereas the Leith and Muirhouse respondents

were typically opiate and benzodiazepine users, frequently injectors. One social network (see Section 4.1.3) was composed primarily of younger users, the majority of whom were non-opiate poly drug users, with only a small number of moderate opiate users. These respondents mainly lived in Newington, Gilmerton and Gracemount and were contacted in a day centre for offenders and ex-offenders, that offered cheap meals and free leisure activities, located in the " Bridges " area of Newington. Newington is an area of mixed accommodation, ranging from tenement buildings made up of flats and bedsits privately rented out to students and the unemployed, to large private houses. Newington is at the East end of the City Centre, surrounding the historic areas of the Royal Mile and the Grassmarket. Gilmerton and Gracemount have large Council developments as well as smaller private homes, and are situated several miles from the City Centre.

Most of the individuals' living in Gilmerton and Gracemount used and purchased their drugs in and around the more central Newington area. Groups of these drug users frequently spent the day in the bedsits of friends who lived nearby. Thus their drug use often took place outwith their home areas, returning home only for evening meals or late at night.

Table 4.1 : Geographical location of respondents

Post code region		n	%
EH1-2	City Centre	30	26
EH3	Fountainbridge	1	1
EH4	Muirhouse/Granton	13	11
EH5	Royston	1	1
EH6	Leith	22	19
EH7	Lochend	2	2
EH9	Newington	9	8
EH10	Bruntsfield	3	3
EH11	Dalry	2	2
EH14	Westerhailes	6	5
EH15	Portobello	1	1
EH16.4	Craigmillar	5	4
EH16.6	Gracemount	6	5
EH17	Gilmerton	12	10
EH30	South Queensferry	1	1
	West Lothian	1	1

The next section describes the " networks " that these respondents belonged to, and where possible, the networks have been cross-referenced with geographical areas to show that social networks often crossed geographical boundaries.

4.1.3. How were they met? - User networks and key contacts

As noted earlier five networks were accessed during fieldwork, the two main ones by the author with three smaller networks being accessed by individuals trained as interviewers.

Network One consisted of 37 individuals. The researcher initiated contact in this area with one individual who will be referred to as "Joe". Joe was a 27 year old male, who at the time of fieldwork had been a voluntary worker in a non-statutory, street-based drugs advice centre for 12 months. Rapport between Joe and the drug-using clients was high. He introduced the first author to a group of regular attenders with whom he had developed good relationships. Thereafter the first

author found access comparatively easy and this network produced 37 interviews. Seventeen of those interviewed were non-attenders at " Joe's agency " although 12 were in contact with a drug service in another area of Edinburgh. Five had no agency contact whatsoever. This network was located mainly in the Leith (n=18) and Muirhouse (n=13) areas of Edinburgh with six other respondents interviewed in other, mainly city centre, areas.

The "key contact" for the second network was an individual who will be referred to as "Badger". He was a 23 year old unemployed male who was a regular visitor to a day centre which, although specifically set up to support offenders and ex-offenders, also had a cafe and recreational facilities which were open to the general public. Badger and friends were daily visitors to the cafe and he was the first self confessed drug user to be introduced to the author on her arrival there. An open, friendly relationship soon developed and as a result the author became known to his social group. Badger was a regular user of cannabis, amphetamines and opiate-based substances such as Temgesic and DF118's although he had never used drugs intravenously.

Contact with this network produced 42 interviews, only five of whom had ever had contact with a drugs-advisory service. Seven were contacted outside the centre. Some of these respondents lived outside the City Centre in housing areas such as Gilmerton (n=12) and Gracemount (n=6), but the majority lived in the Newington and City Centre areas, and their flats tended to be where groups of friends congregated to use drugs and consume alcohol on a more or less daily basis .

The remaining three networks were contacted by three trained interviewers. Network Three interviews were carried out by "Frog", a 39 year old male, married with children and fully employed in the public sector. Frog had been dependent on opiates in the 1960's and 1970's but since that time had used only cannabis. He had access to a very different group of drug users from those described above with a few of the potential respondents being in contact with a drugs service, and most

being employed in professional or skilled occupations. Many of these respondents resided in the City Centre (n=10) although Frog also interviewed 10 respondents who were scattered around the Edinburgh area. This network largely reflects the personal contacts of Frog, although he did encounter 7 previously unknown people during the course of snowballing. Smaller networks were contacted by two further trained interviewers "Tim" and "South". Tim is a 23 year old male who at the time was a voluntary worker with unemployed youths. Eleven people were interviewed by Tim, three of whom had had contact with a drugs advisory service. These respondents linked two areas of Edinburgh; (Craigmillar and Westerhailes) , by virtue of their drug dealing contacts across the city. "South" is a 32 year old female student who had no contact with any drug services but was acquainted with regular cannabis users. This network produced five interviews with none of these respondents ever having made contact with a drugs advisory service. Four of these respondents lived around the City Centre and one lived out of town.

Similar data relating to drug using social networks and geographical areas within a city have been found in other studies employing a social network approach (e.g. Plant 1975; Reeves, 1979).

4.1.4. When, where and why did drug initiation occur?

Theories relating to reasons for initiating the use of illicit drug use are many and varied as described in Chapter Two. There is undoubtedly a complexity of factors which combine to facilitate involvement in substance use; these factors have been found to vary, as do the individuals who use illicit and illegal drugs.

This section aims to provide information relating to the circumstances of initiation reported by this study group. It cannot be claimed that the one hundred and fifteen subjects interviewed during the first phase of this study are representative of either illicit drug users in Edinburgh or those found elsewhere in the United Kingdom; however parallels and comparisons with other research findings can be drawn.

In this section and elsewhere, not only the quantitative data are presented but also some qualitative material gleaned from interviews and from observation. This is not done in an attempt to muddy already complex waters, but rather to facilitate the drawing of conclusions about initiation in general.

Respondents were asked whether they had ever tried any of the following substances: Cigarettes; Alcohol; Solvents; Cannabis; Tranquillisers * ; Barbiturates * ; Amphetamines; LSD: Opiate-based Painkillers * ; Heroin; Cocaine; Diconal or Palfium * ; and Methadone. (* Respondents were asked to specify whether these substances had been received legitimately, i.e. on prescription, and taken as prescribed. Only if the substance had been received for non-medical reasons or for drug-related treatment, were they considered valid).

Those respondents that had tried any of the above gave details relating to the age at first use and stated which substances they had used in the previous month and year, filling in detailed sections on the four illicit substance used more than twelve times in the preceding twelve months. All respondents completed a detailed section relating to their alcohol and tobacco use.

The legal drugs as stepping stones

Table 4.2 displays the mean ages of initiation to the range of substances noted above (The numbers given are for those that had ever tried each substance). It can be seen that licit substances (alcohol and tobacco) were initiated prior to illicit substances, although solvents, (legally obtained only if over 16 years of age, but illicitly used) were initiated at an early age by sixty respondents. No sex differences in ages of initiation to these substances were found.

Table 4.2 : Mean ages of initiation to licit and illicit substances

Substance	Valid cases n	%	Mean age (yrs)	s.d.
Cigarettes	111	97	13.0	3.8
Alcohol	114	99	13.7	2.3
Solvents	60	52	14.8	3.3
Cannabis	115	100	16.0	2.8
Tranquillisers	80	70	17.8	3.3
Barbiturates	55	48	18.0	3.3
Amphetamines	91	79	18.5	3.0
LSD	77	67	18.7	3.1
Opiate Analgesics	76	66	19.0	3.8
Heroin	43	37	19.8	4.0
Cocaine	46	40	20.6	4.5
Diconal/Palfium	34	30	22.2	3.9
Methadone	34	30	27.4	5.5

As one moves up the " hierarchy " from " soft " drugs (e.g. cannabis) to " hard " drugs (e.g. opiates), the number of respondents who have ever tried these substances visibly declines. Thus, this study finds that substances such as cannabis, were more often experienced than the " harder " substances, supporting findings of other studies that show that the use of one " type " of drug does not necessarily lead to the subsequent use of another " type " (e.g. Baumrind, 1983).

Reasons for initiations

Much has been written about the circumstances under which drug initiations take place; for example the role of availability, peer pressure and other situational and personal factors as discussed in Chapter Two. The author chose to consider alcohol, cannabis and opiate initiation in particular since their consumption is judged differently not only by law, but also by society; that is to say that whereas alcohol use is condoned and socially acceptable, (and even in the case of under-age drinking, often expected or even sanctioned by parents) cannabis use is illegal, less acceptable but not as highly condemned as the use of opiates. It was

hypothesised that the circumstances of initiation might vary from substance to substance as a result of these differences in the perceived and accepted status of each substance (e.g. Kandel and Maloff, 1983, MacGregor 1989).

Respondents were asked why they had tried alcohol, cannabis and opiates for the first time. (Opiates included any of the following substances; heroin, DF118's (dihydrocodeine), Temgesic (buprenorphine), Diconal (dipipanone), Palfium (dextromoramide), opium or morphine). The results are shown below.

Table 4.3 : Reasons for initiation

Reason	Alcohol n = 106		Cannabis n = 103		Opiates n = 27	
	n	%	n	%	n	%
Curiosity	59	56	67	65	11	41
To be sociable	17	16	6	6	1	4
Friend said was good	5	5	15	15	3	11
Persuaded/forced	2	2	3	3	0	0
To relieve boredom	0	0	2	2	1	4
Avoid withdrawal*	0	0	0	0	8	30
Other reasons**	20	19	10	10	3	11
Don't know why	3	3	0	0	0	0

* See the following page for explanation of this apparent anomaly
** `Other' included "can't remember", "to relieve pressure" and miscellaneous others.

As indicated by Table 4.3 curiosity was the most frequently cited reason for first use of these substance types, supporting findings of other studies (e.g. Brown et al, 1971; Hser, Anglin & McGlothlin, 1987a; Hammersley et al, 1988). Curiosity often arose as a result of friends talking about a substance and being positive in their reports about its effects, as exemplified in the quotations below :

"I took hash the first time when I was 19 because my boyfriend took it and everyone else in his little group took it... curiosity too - I wanted to know why they all raved about it so much." (Female, 25 years, non-injecting drug user).

"I wanted to see what effect I'd get off DF's because everyone else had been talking about them and I'd not tried them myself." (Male, 19 years, injecting drug user).

For all substances the majority of respondents had knowledge of their potential effects prior to first trying them; this included alcohol. Holding a positive or neutral view towards something is more likely to lead to trying it than if a negative view is held. (e.g. Goode 1972; Jessor and Jessor, 1977; Glynn, 1981).
Alcohol was more commonly first used as a means of " being sociable ", and being told by friends " it was good " was more frequently given as a reason for first trying cannabis and opiates. No one claimed to have been persuaded or forced to try opiates (although subtle peer pressure probably did exist), with only small numbers citing this as a reason for first alcohol or cannabis consumption. Wanting to be part of a group and believing that the substance concerned would not do any harm since it was not perceived to have done any to one's friends, were common explanations. Receiving peer approval appeared to be a strong motivation, if not always expressed, as in the following quotation:

"Started sniffing glue because the pals I were hanging around with were all doing it, so I felt left out." (Male 23 years).

Amongst this group the opiates which had been used in the twelve months prior to interview were primarily prescribed substances (e.g. DF118's, Temgesics) and although these were often not the first opiate a respondent had tried, they were the only substances about which details were gathered. Therefore the 30 per cent citing " withdrawal " as a reason for taking an opiate generally referred to individuals who had first taken DF118's or Temgesic as a means of alleviating heroin withdrawal.
It must be noted, however, that reasons given for initiating the first ever illicit substance may differ substantially from reasons given for trying a new substance. For example, the desire to get " stoned " was often given as a reason for adding a new drug to ones repertoire; such experimentation amongst poly-drug users was common.

Contexts of initiations

The role of friends emerges once more when the company in which initiations to alcohol, cannabis and opiates had taken place is examined. Table 4.4 shows that the majority of initiations took place in the company of either one, or a group of, friends (combined percentages, alcohol 53%, cannabis 82%, opiates 77%). First using opiates whilst in the company of friends has been well documented elsewhere (e.g. Stephens and McBride, 1976). A third of respondents had their first alcoholic drink with siblings, parents or another relative, in spite of the fact that the majority of respondents were too young to be legally allowed to drink alcohol even if with a parent. Tasting alcohol for the first time whilst in the company of a parent or parents has been reported in other UK studies (e.g. Davies and Stacey, 1972; Hawker, 1978; Plant, Peck and Samuel, 1985).

Table 4.4 : Company at drug initiation

Company	Alcohol n = 106		Cannabis n = 102		Opiates n = 27	
	n	(%)	n	(%)	n	(%)
Group of friends	46	(43)	63	(61)	15	(55)
One friend	11	(10)	22	(21)	6	(22)
Sibling/parent/relative	33	(31)	9	(9)	0	(0)
Spouse/partner	2	(2)	5	(5)	3	(11)
Alone	4	(4)	2	(2)	1	(4)
Can't remember	7	(7)	1	(1)	0	(0)
Other company	3	(3)	1	(1)	2	(8)*

* These two respondents were imprisoned at the time of their initiation to opiates, thus were in the company of their cell mate/s.

Sources of first cannabis and opiate

There has been concern expressed by the public and reported in the popular media, about " unscrupulous dealers " exhorting individuals to buy one or other illegal

drugs. Therefore respondents were asked from where they had obtained their first cannabis, and their first opiate. As noted previously opiates were not the first ever illicit drug tried by respondents, thus, as shown in Table 4.5, they more often came from dealers with whom contact will have been developed over the years of use of other illicit drugs.

Table 4.5 : Source of drug at initiation

Source	Cannabis (n=103) n	(%)	Opiates (n=26) n	(%)
From a friend	81	(79)	10	(38)
From a dealer	12	(12)	7	(27)
From a relative	9	(9)	2	(8)
Prescribed (GP)	0	(0)	3	(12)
Other source*	0	(0)	4	(15)

* Two respondents received their first opiate from a cell mate while in prison. Another claims to have found a hidden `stash' and had stolen them. The fourth stole his first opiate from a parent's legitimately received medical prescription.

4.1.5. Summary and discussion

Several British studies have linked social deprivation to the use of illicit drugs (e.g. Goode, 1972; Haw, 1985; Peck and Plant, 1986; Smith, 1987; Parker, Bakx and Newcombe 1988). In this study group unemployment was high (43.5%), and those who were working were in primarily manual and semi-skilled positions. Fifteen respondents had never worked.

Educational attainment, or rather the lack of it, has also been linked with illicit drug use in many British and American studies (e.g. Josephson and Rosen 1978; Johnston et al., 1978; Bachman et al., 1981; Jessor and Jessor; 1978 Plant, Peck and Samuel, 1985). This study found educational acheivement to be minimal in almost half (46%) of the study group, although it is not possible to say whether this

predated drug use or not, since, unlike some of the American studies, (for example, that carried out by the Jessors) all respondents in the current study were *already* involved in drug use at the time of first interview.

A study of drug misusers new to treatment in London, carried out by Oppenheimer and her colleagues, found that of the 150 individuals interviewed, 60 per cent had had one or more conviction and 37% had served a prison sentence (Oppenheimer, Sheehan and Taylor, 1990). A study of Class A drug users in Nottingham (Bean and Wilkinson, 1988) found that 77 of the 83 users interviewed reported criminal convictions, most commonly relating to theft and handling stolen goods (reset). These results are very similar to those found in the current study where 50 percent of respondents had served a prison sentence. However, the populations differ somewhat in that all respondents in the Oppenheimer study were receiving treatment for their drug use, which can often be due to an accumulation of negative experiences of prolonged use, one of which is likely to be getting in trouble with the police. Respondents in the Bean study were all users of Class A drugs whereas our study group contained those who had not and did not use these substances.

The use of licit substances such as alcohol and tobacco at illegal ages has been implicated in the later use of illicit drugs (Hamburg, Braemer & Jahnke, 1975; Kandel, Kessler & Margulies., 1978; Kandel, 1980; O'Donnell & Clayton, 1982; Donovan & Jessor, 1983 ; Plant, Peck & Samuel, 1985). Although this study group is not necessarily representative of all illicit drug users, nor is it a study of a " normal " population (in that respondents qualified for interview by virtue of their being regular illicit drug users), the " stages " of drug initiation outlined by Kandel and her colleagues (1978a, 1978b, 1980, 1986, 1989) are clearly shown. Furthermore this study found that fewer respondents had used the higher category

drugs in Class A and B which supports Kandel's statement that:

"The notion of stages in drug behaviour does not imply that these stages are either obligatory or universal, nor that all adolescents must progress through each in turn .... The use of a particular drug does not infallibly lead to the use of other drugs higher up in the sequence."

The role of friends in first drug experience was apparent in that the shaping of attitudes favourable to trying a new substance was frequently reported to have been influenced by having contact with friends or acquaintances who already used the substance concerned. Friends already initiated also assist the " neophyte " in properly using the substance and any related paraphernalia, in recognising the effects of a drug and in perceiving them as pleasurable and valued in that social setting (Becker 1963; Goode, 1969). Multiple substance use beyond that of marijuana use, is more likely to occur where there are multiple substance using acquaintances (Single et al., 1974).

The social aspects of the use of both legal and illicit drugs was highlighted by the fact that few respondents had first tried alcohol, cannabis or opiates, when not in company. With regards to illegal substances, use within a group provides kinship and validation of an act that may be condemned within non-using friendship or social networks (e.g. Sadava, 1975). Furthermore, certain acts of drug use are ritualised (e.g. sharing of cannabis joints, sharing of injecting equipment), thus group consumption becomes part of the behaviour development.

Finally it emerged that, unlike the media promoted myth of first illicit drug being " pushed " to youngsters by dealers or hardened drug users, most drug initiations occurred as a result of receiving the substance in question from a friend. This is particularly the case for drugs initiated early in a drug-using " career ", such as cannabis, where links with drug dealers are less likely to be established. Opiates, on the other hand, are more likely to come from dealers, some of whom are also friends.

4.2. Patterns of Drug Use

4.2.1. Nature and frequency of use

The frequency measure used in this thesis is that of self reported days of use in the 12 months prior to interview. Respondents were asked to estimate the frequency of use of eleven illicit substances, plus alcohol and tobacco. Results from this are presented in Table 4.6, where it can be seen that the most frequently used substances were cigarettes (by all except 8 respondents), alcohol (all except two respondents) and cannabis (all except 2 respondents). Tranquillisers were also used on a regular basis as were opiate-based painkillers or analgesics; however these substances had been used by fewer study respondents (59 and 54 respectively). This is consistent with the initiation data presented in Table 4.2 which showed that fewer subjects had ever tried " harder " drugs such as opiates, than had tried cannabis, and fewer still had been using them in the 12 months prior to interview (for example 70 respondents have tried tranquillisers, 59 have used recently; 79 have tried amphetamines, 42 have used them in the last 12 months etc).

Table 4.6 : Frequency of substance use (n = 115)

Substance	Mean (days)	s.d.	n
Cigarettes	341	67	107
Alcohol	138	94	113
Cannabis	182	117	113
Tranquillisers	142	139	59
Barbiturates	26	55	22
Amphetamines	12	22	42
LSD	5	7	19
Heroin	34	84	17
Methadone	66	101	25
Diconal/Palfium	77	97	15
Opiate Analgesics	123	142	54
Cocaine	16	53	22
Solvents	112	109	15

4.2.2. Characteristics of user sub-groups

As described in Chapter 3 (3.2.9.) the 115 respondents were categorised into one of four drug-using sub-groups according to the nature and frequency of their substance use.

Table 4.7 displays the sex distribution amongst the four sub-groups, and also the mean ages of respondents within each group.

Table 4.7 : Sex and age of user sub-groups

	Sub-Group 1 n=28 n (%)	Sub-Group 2 n=32 n (%)	Sub-Group 3 n=28 n (%)	Sub-Group 4 n=27 n (%)
Sex Male	20 (71)	20 (63)	18 (64)	21 (78)
Female	8 (29)	12 (37)	10 (36)	6 (22)
Age Median (years)	26.0	24.0	21.0	25.0
(s.d.)	(5.9)	(8.0)	(4.9)	(5.2)

The sex distribution did not vary significantly between sub-groups ($x^2 = 1.956$, df = 3) although the trend was towards a greater proportion of males in the cannabis only and the high opiate using sub-groups. In terms of *mean* age, the difference between the groups was significant ($F = 5.869$, df = 3, 111; $p < .001$) although the variation within groups was high.

When chi-square tests were performed, no significant difference emerged between groups in terms of marital status, although there were more married or cohabiting respondents in the cannabis only group than in the other sub-groups. High opiate users were least likely to report being married or cohabiting. (39, 28, 25 and 18.5 per cent respectively).

Table 4.8. shows the results of chi-square tests between sub-groups in relation to leaving school prior to a 16th birthday, being employed at the time of interview, and having served a prison sentence. In the case of school departure the two opiate using groups were significantly more likely to have left prior to age sixteen; opiate users, particularly those in Sub-group Four, were most likely to have served a prison sentence, and none of this sub-group were in employment at the time of interview.

Table 4.8 : Education, employment and imprisonment; sub-group differences

	Sub-group 1 n=28		Sub-group 2 n=32		Sub-group 3 n=28		Sub-group 4 n=27	
	n	%	n	%	n	%	n	%
1* Left school < 16 years	3	(11)	11	(34)	21	(75)	18	(67)
2* Currently employed	21	(75)	21	(66)	8	(29)	0	(0)
3* Served prison sentence	5	(18)	14	(44)	16	(57)	23	(85)

1* X^2 = 29.9, df= 3, p <0.01 2* X^2 = 41.0, df= 3, p<0.01
3* X^2 = 28.1, df= 3, p <0.01

When the mean ages of initiation were examined according to drug using sub-group it emerged that opiate users had smoked their first cigarette when significantly younger than non-opiate user (cannabis only users: 14.8 years, non-opiate users: 14.2 years, moderate opiate users: 10.9 years and high opiate users: 12.1 years; F = 7.35, df= 3,107, p = .0002). Likewise for first cannabis use, opiate users had tried it first at a younger age on average (cannabis only users: 17.1 years, non-opiate users: 16.3 years, moderate opiate users: 15.5 years and high opiate users: 15.1 years; F = 2.83, df = 3, 111, p = .04). The only other substance to differ in

initiation age and where there were sufficient numbers of respondents in each sub-group that had tried the substance, was cocaine. Again opiate users had first tried cocaine when younger (cannabis only users: 22.5 years, non-opiate users: 22.3 years, moderate opiate users: 17.7 years and high opiate users: 20.0 years, $F = 2.84$, $df = 3, 55$, $p = .046$).

The following table (Table 4.9) presents the mean days of substance use for the four sub-groups.

Table 4.9 : Frequency of substance use by user sub-groups

Substance	Sub-group 1 (n=28) Mean days (n)	Sub-group 2 (n=32) Mean days (n)	Sub-group 3 (n=28) Mean days (n)	Sub-group 4 (n=27) Mean days (n)
Cigarettes	330 (24)	327 (31)	349 (25)	361 (27)
Alcohol	201 (28)	164 (31)	110 (28)	71 (26)
Cannabis	186 (28)	205 (30)	153 (28)	185 (27)
Tranquillisers	- -	10 (10)	87 (22)	237 (27)
Amphetamines	- -	5 (11)	9 (15)	21 (16)
Barbiturates	- -	2 (1)	21 (9)	32 (12)
LSD	- -	2 (7)	5 (9)	7 (3)
Heroin	- -	- -	6 (4)	43 (13)
Methadone	- -	- -	7 (7)	89 (18)
Diconal/palfium	- -	- -	- -	77 (15)
Opiate analgesics	- -	- -	14 (27)	231 (27)
Cocaine	- -	5 (11)	5 (3)	35 (8)
Solvents	- -	154 (8)	83 (5)	17 (2)

The frequency of alcohol consumption differed significantly between groups ($F = 13.43$, $df = 3, 109$, $p < .001$), with opiate users drinking significantly less often than non-opiate users. Tranquillisers, in contrast, were used significantly more often by high opiate users than by either Sub-group 2 non-opiate users or the moderate opiate users ($F = 21.14$, $df = 2, 56$, $p < .001$). The only other substance whose frequency of use differed was that of opiate-based analgesics, where not

surprisingly, high opiate users consumed such tablets as Df118's and Temgesics significantly more often than those in the moderate opiate group ($F = 75.7$, $df = 1, 52$, $p < .001$).

It is clear from the above table that a wide range of illicit and prescribed drugs were being used on a regular basis by opiate using respondents in this study, particularly those in Sub-group 4. Respondents in Sub-group 3 were younger than those in the other groups (see Table 4.7) and appeared to be engaged in somewhat more " experimental " use, with a high proportion having used both tranquillisers and opiate analgesics, but on a lower mean number of days in the year preceding interview. Five individuals in this group were injectors, the remainder took the drugs orally.

With sub-groups displaying significant differences in terms of their educational attainment, criminal experience, current employment status, initiation ages to some substances, and differences in the frequency with which substances were used, the next step was obvious. Were these sub-groups significantly different in terms of their economic situation, did their sources of income and expenditures vary also? These findings are outlined in the next section.

4.2.3 Economics of drug use

Respondents were asked to detail their average weekly incomes and average expenditures. The income measures included a variety of legal sources such as salaries, grants and state benefits; plus marginal sources of income such as gambling, borrowing and taking out loans; plus illegal sources of income. Table 4.10 presents the mean income data from all sources, for each drug-using sub-group. Analyses of variance were carried out to examine whether or not any differences in specific sources income were apparent between these four groups.

Table 4.10 : Mean Weekly Incomes by Sub-group

Mean £'s Source	Sub Group 1 mean (n)		Sub Group 2 mean (n)		Sub Group 3 mean (n)		Sub Group 4 mean (n)		Sig
Wage	121	(19)	121	(22)	77	(9)	83	(1)	NS
Unemployment	37	(4)	29	(9)	36	(19)	31	(26)	NS
Family Allowance	-	-	14	(1)	18	(2)	21	(1)	NS
Benefits	39	(5)	17	(4)	30	(2)	38	(3)	NS
Rent	44	(4)	-	-	5	(1)	30	(1)	NS
Grant	57	(5)	-	-	-	-	-	-	-
Gifts	35	(3)	8	(6)	7	(8)	21	(7)	NS
Interest	50	(1)	35	(3)	-	-	200	(1)	NS
Casual	62	(5)	10	(7)	31	(4)	110	(2)	**
Theft	50	(1)	130	(2)	28	(2)	168	(9)	NS
Fraud	-	-	-	-	35	(2)	96	(4)	NS
Dealing	1	(1)	46	(3)	85	(5)	156	(7)	NS
Borrow	11	(4)	8	(8)	17	(15)	42	(10)	NS
Gamble	59	(3)	8	(2)	5	(2)	-	-	NS

** " Casual " $F = 3.34$, $df = 3,14$, $p<0.05$

(The numbers in parenthesis indicate the number of respondents who reported having an income from each individual source.)

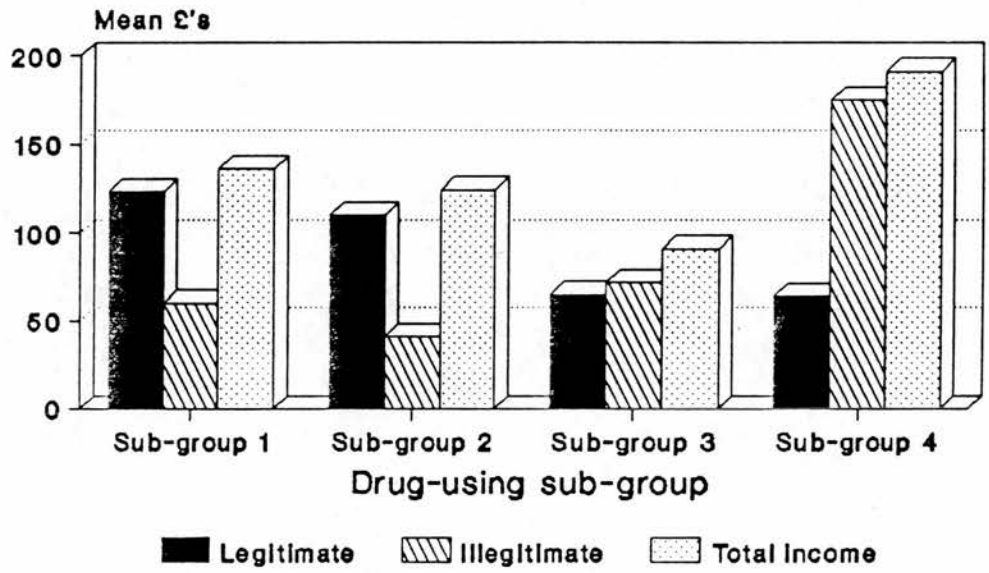
The only individual income item to differ significantly across sub-groups was that of casual work, however the numbers actually reporting this form of income generation were low, and the data were skewed by one Sub-group Four respondent who reported earning substantial amounts by this means (an average of £200 per week).

Figure 4.1 displays the total incomes of the four sub-groups; the overall total being the combined total legitimate and illegitimate income; the legitimate total and the illegitimate total are shown separately. The overall total incomes of the four sub-groups approached a significant difference ($F = 2.673$, $df=3,111$, $p < .01$). A significant difference was found in relation to legitimate income whereby non-opiate

users reported higher levels of legitimately gained income (F = 6.09, df=3,111, p < .001). This can obviously be related back to the figures regarding employment since a significantly larger number of opiate users were, in fact, in receipt of unemployment benefits, rather than salaries or wages.

Although no significant difference was found in terms of illegitimate income, it can be seen from the data above that opiate using individuals in Sub-groups 3 and 4 were obtaining income from illegal means and the tendency was for these respondents to make larger sums of money than non opiate using respondents in Sub-groups 1 and 2 (for example, the income from dealing figures).

Figure 4.1 :
Mean incomes by Sub-group



When these income data were examined according to sex, no significant differences were found. Although not significant, the trend was for males to earn more illegitimately than did females (a mean of £113 as compared to a mean of £86). It has been suggested that female drug users may be more likely to participate in low-detection, income-generating crimes such as prostitution, low level dealing, or

shoplifting, whereas males may be more likely to be involved in a variety of thefts, frauds, or in drug dealing (James, 1976; James et al., 1979; Kraus, 1981; Inciardi, 1987). In relation to this study, the numbers of females involved in illicit income generation was too low to permit detailed analysis. Only eleven females reported having any illicit income; four did casual work (mean = £16), three were involved in theft (shop-lifting) (mean = £169), two dealt in drugs (mean = £31), one reported prostitution (£250 weekly average income), and one reported fraud (£40 weekly average income). Thus we cannot use these data to support or refute suggestions resulting from larger scale, and more representative, studies.

Items relating to average weekly expenditure were subject to the same analysis, and these data also made it possible to calculate respondents' budget balances.

Expenditures were examined according to drug-using sub-groups, and sex. Several interesting findings resulted from the analysis of expenditure by drug using sub-group. Table 4.11 displays the mean weekly expenditures on specific items and Figure 4.2 displays the mean expenditure totals, for overall total (legitimate plus illegitimate), and for legitimate and illegitimate expenditures alone.

A vast difference existed between the expenditure on drugs by the high opiate users in Sub-group Four and the other three Sub-groups, with Sub-Group Four users spending an average of £94 per week on illicit drugs ($F = 10.82$, $df = 3,93$, $p < .01$).

The non opiate using Sub-groups One and Two spent significantly more on paying back debts ($F = 3.42$, $df = 3,58$; $p < 0.05$) yet Table 4.10 showed that opiate users borrowed greater (although not significantly) amounts of money.

Table 4.11 : Mean Weekly Expenditure by Sub-group

	Sub-group 1 mean (n)		Sub-group 2 mean (n)		Sub-group 3 mean (n)		Sub-group 4 mean (n)		Sig
Board	45	(4)	12	(8)	15	(8)	20	(8)	**
Rent	27	(20)	30	(17)	19	(7)	21	(4)	NS
Meals	26	(24)	24	(22)	23	(18)	19	(15)	NS
Snacks	6	(16)	8	(22)	5	(22)	11	(20)	***
Debts	18	(10)	14	(21)	8	(21)	6	(10)	**
Bills	17	(17)	15	(15)	7	(7)	7	(4)	NS
Household	5	(12)	6	(6)	3	(4)	4	(4)	NS
Clothes	7	(16)	8	(19)	9	(17)	45	(11)	***
Alcohol	26	(28)	16	(28)	20	(22)	15	(15)	NS
Tobacco	10	(23)	8	(30)	10	(24)	14	(27)	***
Drugs	10	(25)	9	(24)	19	(22)	94	(26)	***
Pets	4	(9)	2	(4)	14	(1)	6	(3)	***
Gambling	11	(4)	6	(9)	5	(6)	37	(3)	NS
Hobbies	6	(18)	3	(20)	3	(6)	7	(5)	NS
Entertainment	3	(18)	3	(17)	2	(3)	18	(5)	***
Travel	8	(21)	7	(26)	4	(23)	19	(23)	***
Child maintenance	-	-	-	-	33	(2)	20	(1)	NS

** ANOVA $p < .05$ *** $p < .01$

A larger proportion of the cannabis only users were in employment and were married, this being reflected in the finding that these respondents spent significantly more on accommodation ($F = 4.28$, $df=3,24$; $p<0.05$).

The remaining differences in specific expenditure arose from the opiate users who spent significantly more on snacks, junk food (i.e. eaten primarily outside the home) ($F = 4.71$; $df=3,76$; $p<0.01$); on clothes ($F = 5.21$, $df=3,59$; $p<0.01$); on cigarettes ($F = 4.04$; $df=3,100$; $p<0.01$); on travel ($F = 5.44$; $df=3,89$: $p<0.01$) and on illicit drugs ($F=10.82$; $df=3,93$; $p<0.01$).

These differences are not perhaps very surprising in that opiate users have been reported not to have particularly healthy or regular eating habits; to be heavy smokers and to rely heavily on the black market for their illicit drug supplies thus

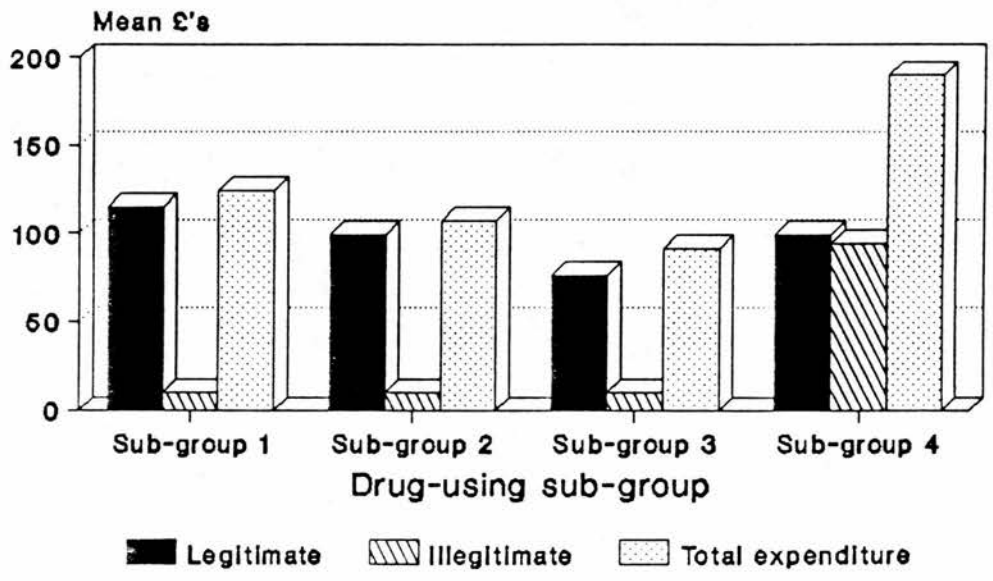
needing to travel extensively, both locally and beyond, in order to obtain their drugs (e.g. Hammersley and Morrison, 1987, 1988).

More surprising however, is the amount that heavy opiate users reported spending on clothes. The author witnessed a great deal of fashion consciousness amongst these individuals, with leisure wear (e.g. training shoes and `shell' suits) being particularly sought after, to the extent that such clothing became almost a uniform.

The other significant differences found (e.g. on pets and entertainment) are less easily explained, and were also based on only a few respondents.

Figure 4.2 displays the total expenditure means of the four sub-groups. The total mean expenditure varied significantly at the $p<0.01$ level ($F = 3.97$, $df=3,111$), and this is reflected in a significant difference between sub-groups in terms of illegitimate expenditure, basically expenditure on drugs ($F = 10.92$, $df=3,94$; $p<0.01$). Legitimate expenditure was not significantly different betwen the user groups.

Figure 4.2 :
Mean expenditure by Sub-group



••• Total and illegitimate expenditure

What is apparent from these data is that respondents by no means spent all their income on illicit drugs, but met " normal " costs of living such as rent, food, and even bills! Alcohol and tobacco were also common items of expenditure, which have been classed as " luxury " items in other studies of comparable populations (e.g. Hammersley et al., 1990a)

In terms of sex differences in expenditure, no significant differences were found, although the trend was for females to spend less on lodgings (a mean of £13 as compared to £21) alcohol (mean of £11 compared to £23), tobacco (£10 compared to £19), gambling (£2 compared to £11) and on illicit drugs (£20 as compared to £40).

In order to examine whether respondents were living within or beyond their means, budget balances were compared. Three balances were calculated; legitimate balance (i.e. legitimate income minus legitimate expenditure); illegitimate balance (i.e. illegitimate income minus illegitimate expenditure) and total balance (i.e. total income minus total expenditure). Respondents therefore either reported a positive, negative or matched budget balance. In terms of total balance (i.e. total overall income minus total overall expenditure), fewer opiate using respondents had positive budget balances (61% of cannabis only users and 63% of non-opiate users in Sub-group 2 compared to only 43% of moderate opiate users and 37% of high opiate users). In other words, opiate users were less likely to have money left over after meeting expenses.

In terms of legitimate balance (i.e. legitimate income minus legitimate expenditure), the question was whether, without the use or expense of illicit drugs, respondents could survive on their legitimate incomes. Opiate users, particularly those in Sub-group 4, less often reported positive budget balances (26% of high opiate users compared to 46% of moderate opiate users, 59% of non-opiate users, and 71% of cannabis only users). This can be explained in part by the fact that all of these respondents in Sub-group 4 were unemployed, thus their mean legitimate income

came from state benefits, yet their legitimate costs of living were much the same as those in employment.

Finally, opiate users more often reported positive illegitimate budget balances i.e. their illegitimate incomes more often outweighed their illegitimate expenditures (48% of high opiate users, 32% of moderate opiate users, 25% of non-opiate users in Sub-group 2 and 14% of cannabis only users). In contrast, the overwhelming majority of non-opiate users spent more money on drugs than they made illegitimately. These respondents more often had to finance their drug use from legitimate sources of income.

To summarise therefore, the heavier drug users more often reported having illicit incomes, and not all the monies made from a variety of criminal and borderline illicit activities was spent on drugs, thus their illicit incomes often subsidised their licit expenditures. In contrast, those with less illicit incomes had to subsidise their drug expenditures from their licit incomes. *Without* drug use, between a quarter (for heavy opiate users) and almost three-quarters (for cannabis only users) of the respondents in this study would have had a licitly gained financial " profit ". In other words they would have been living within their means.

4.2.4. Summary and discussion

The drug users in this study were a varied group, not only in age and educational background, but also in terms of the types of drugs used and the frequency with which they used them. Although there was some variation within the drug using sub-groups, comparisons between groups were of interest. Non-opiate users more often relied on legitimate sources of income than did opiate users. Opiate users spent significantly more of their predominantly illegitimately gained incomes on drugs. However none of the regular drug users interviewed during the course of this study could be said to have neglected other costs of living in order to finance their drug use. Even the high opiate users ate, clothed themselves and paid rent. These

results are similar to those found in other studies of Scottish drug users (e.g. Hammersley et al., 1990; Hammersley, Forsyth & Lavelle, 1990) whereby users are seen often to moderate their drug intake according to the free cash available to them and even when excess monies are available the purchase is often that of luxuries such as music cassettes or clothes.

4.3 Involvement and Consequences of Use

This section discusses the various types of drugs that were being received on prescription by respondents, the practice of injecting, the adverse consequences of drug use reported by respondents, and the impact of HIV infection upon both drug use and sexual behaviour.

4.3.1. Multi-substance use and use of prescribed drugs

Having described in earlier chapters the frequency with which a wide variety of substances were being used by this study group, and having briefly discussed the various modes of use, this section moves on to focus specifically on the nature of prescriptions being received by this group of regular illicit drug users.

At the time this research was carried out (late 1987 until early 1990) there was a highly active and varied black market in both illegal and licit drugs. This is by no means meant to suggest that this market is a stable one, quite the contrary. The black market experiences fluctuations as a result directly or indirectly of police and customs seizures and health policies (i.e. regarding treatment of drug users and therefore of prescribing policy). The black market can not always keep up with demand for preferred substances, as was the case when heroin became scarce, and so it adapts to new demands, new crazes. Cannabis is about the only market which approaches stability. At the time of first interviews the drugs being used amongst non-opiate users were cannabis, Valium, temazepam, solvents, and to a lesser

extent cocaine and amphetamines. Amongst opiate users these substances were only part of a much wider list including; Valium, temazepam, Ativan, triazolam (Upjohn's), Librium, temgesic, DF118's, diconal, distalgesic, methadone, heroin, MST (morphine sulphate) and cyclizine. The misuse of the last two mentioned drugs were new phenomena, and cyclizine in particular continues to attract concerned attention from drugs workers in Edinburgh who have witnessed the profound and bizarre behaviour changes that regular use (usually injecting) of cyclizine produces (Lewis, 1992). The problems of cyclizine have been noted elsewhere in the UK. (e.g. Ruben et al., 1989).

Where do all these substances originate ? Although this study did not, (for reasons of the author's personal safety amongst other things), pursue the issue of source and supply and avoided direct questioning about the black market and informal dealing, the author was frequently witness to the latter and questioning was possible on the issue of prescribed drugs. Users were quite happy to discuss their prescriptions in that they saw the research as a possible outlet for their expressing dissatisfaction with the level of prescribing they received (i.e. dissatisfaction that the quantity of drugs they desired and felt they " needed " was not being met by their general practitioners and local prescribing outlets).

Of the 115 regular drug users interviewed, 28 were in receipt of one or more prescribed drugs. These prescriptions came from either their general practitioner (GP) , the Community Drug Problem Service (CDPS) or the out-patient clinic at the City Hospital. The latter 2 outlets prescribed only methadone at this time, with the City Hospital being set up primarily to respond to the needs of injecting drug users infected with HIV (Brettle et al, 1987).

No non-opiate users in this study were getting prescriptions, which is in accordance with the guidelines laid down by the Home Office (Advisory Council for the Misuse of Drugs, 1989). Five moderate opiate users were getting prescriptions, 2 of whom were current injectors. Twenty-three of the heavier opiate users were

getting prescriptions, 16 of whom were injectors. A further 5 of the heavy opiate users were ex-injectors. Of the 23 heavy opiate users, 8 individuals had received prescriptions for 2 substances, 8 had had 3 different substances prescribed and 5 had received 5 substances on prescription in the 12 months preceding interview. It must be pointed out that many of these prescriptions ran concurrently, although often this referred to methadone which was obtained from one outlet, and another or others received from one GP. The substances obtained on prescription are shown in Table 4.12 .

Table 4.12 : Prescribed drugs amongst opiate users

Substances	Sub-group 3 n = 27 *	Sub-group 4 n = 27 *
Valium	4	14
Temazepam	2	8
Upjohn's (Halcion)	1	4
Other tranquillisers	1	2
DF118's	1	14
Temgesic	1	4
Methadone	-	9
Others**	-	3

* The n's are based on the number of respondents having used tranquillisers and/or painkillers in the previous 12 months

** Others included chlorylhydrate, codeine linctus and AZT (zidovudin).

For those not in receipt of prescriptions, although using these licit drugs in an illicit manner, the main source was the black market.

4.3.2. Intravenous drug use

In this study group there were 21 individuals who were currently injecting drugs, 18 were in the high opiate using sub-group 4, the remainder were moderate opiate users (sub-group 3). However these injectors usually also smoked cigarettes and

cannabis, drank alcohol, and swallowed pills. In the main, injectors are found to be more knowledgeable about the compositions and potential effects of the substances taken than are non-injectors using similar substances (Morrison and Plant, 1990; Lewis, 1992). Valium, for example, would be taken orally by some users following an injection of heroin or other opiates, in order to prolong the effect of the opiate and to reduce the " comedown ". Other users swallowed literally handfuls of pills without knowing either the drug names or effects. Many of these drug cocktails are potentially lethal, but this risk is not considered readily. It is often a matter of " kudos " within drug using groups for individuals to show a willingness to " try anything " for the sake of a " buzz ". On several occasions the author was shown pills by young drug users and asked what they were; on one such occasion she took a sample away with her to identify and later told the persons concerned that the pills were meant for the treatment of high blood pressure and of heart disease. By this time their supply of these drugs had been ingested along with tranquillisers and cannabis. As Ghodse and his colleagues observed, quite often it is the cocktails of pharmaceuticals with their varied interaction effects that contribute to drug overdoses, rather than simply one of the substances taken amongst the rest, such as heroin (1985).

Drug users quickly learn which are the best drugs to inject and which are not (e.g. Parker, Bakx & Newcombe, 1988). In this study group the author was informed that DF118's (dihydrocodeine) is " one not to be injected ", due to its high level of " chalkiness ". One user explained to the author that :

" Anyone who tells you they're banging up DF's is either crazy or a liar ; if they were jagging them up their veins would be totally fucked, and they'd end up losing their arm or hand or summat."

This was also reported to be the case for palfium (dextromoramide) which had been popular during the late 1970's and very early '80's prior to heroin's rapid rise as the drug of choice for opiate users. Several local drug users had lost fingers, arms or in

one case, a leg, in amputations which they attributed to the injecting of " palf " (palfium).

There are those however, who at first interview stated quite categorically that they intend never to inject drugs. For example, one young male declared :

" I'd never jag, not with AIDS and that, it's just pure junkies that use needles man"

while another explained how he had :

" been told by my mates like, that it's the best way to do dike (diconal), but I just keep saying " No way ". I'm feart of needles anyways, so I sit and watch them all jagging up and I sit there and knock a few back with a cup of tea, I still get a good hit off them so why bother? ".

Another reason given for not injecting heroin was found in a study of heroin users in the Wirral conducted by Parker and his colleagues (1988, op cit.). The authors describe how some of those named in the study as " casual injectors " do not inject street heroin because of the impurities that it might contain and how instead these users " limit their injecting to other opioids generally stolen from chemist shops " (p 53). Similar reports of the impurity of heroin were made in the current study, with users claiming that :

" it's a pure waste of time jaggin' up the smack on the streets this now, it's full of shit. Not worth the money...should stick to their scripts rather than get ripped off ."

The link between injecting drug use and the increased risk of HIV infection is discussed in Section 4.3.4.

4.3.3. Consequences of drug use

The consequences of drug use to be described here include: the adverse consequences reported and attributed by users to their regular illicit drug use; the need for and use of helping agencies; and the impact of HIV and AIDS upon drug use.

Adverse consequences

Respondents were asked whether or not they had experienced any of the following adverse consequences of their drug use in the 12 months preceding interview :

arguments with family; arguments with friends; arguments with partner; split up of relationship with partner; problems at work; having lost a job; being banned from licensed or other premises; financial problems; trouble with the police; being imprisoned; being involved in violence; health problems.

A significant difference was found between the sub-groups in terms of the numbers reporting having experienced each of these problems. These results are shown in Table 4.13, where it can be seen that the percentages of respondents reporting each adverse consequence increased as drug involvement increased. In the main, a greater percentage of heavy opiate users in Sub-group 4 had experienced adverse consequences than any of the other three sub-groups. There were a few exceptions however, where significantly more of the moderate opiate users had experienced a certain consequence of use than the heavy users, for example, being involved in violence (46% compared to 37%), and arguing with friends as a result of ones' drug use, (39% compared to 26%). When these data were examined by sex of the respondents, regardless of drug using sub-group, only the experiencing of two of the listed adverse consequences were found to significantly differ between the sexes: males were significantly more likely to report having been in trouble with the police as a result of their substance use (49% of males, 22% of females, $x^2 = 7.54$, df = 1, p = 0.006) and to have been involved in violence (34% of males, 11% of females, $x^2 = 6.68$, df = 1, p = 0.009).

Table 4.13 : Experience of drug-related adverse consequences

Consequence	Sub-gp 1 (n=28) %	Sub-gp 2 (n=32) %	Sub-gp 3 (n=28) %	Sub-group 4 (n=27) %	x^2
Police trouble	18	41	46	59	10.3*
Family rows	14	28	54	67	19.7**
Partner rows	14	44	50	52	10.6*
Banned	4	31	46	44	15.2**
Financialproblems	7	25	36	44	10.7*
Violence	4	22	46	37	14.9**
Health Problems	11	16	25	41	8.3*
Rows with friends	4	19	39	26	10.9*
Split up with partner	0	19	36	26	11.9**
Imprisonment	0	19	18	30	9.1*
Problems at work	0	5	6	3	NV#
Been sacked	0	1	3	2	NV#

x^2 (chi-square) , df = 3, * $p < 0.05$, ** $p < 0.01$.
NV : Not Valid : Statistical calculations invalid due to the low number of respondents reporting the final two adverse consequences

It was hypothesised that experiencing a large number of negative consequences of use would increase the likelihood of a person making contact with a helping agency. Obviously the " problems " addressed in the questionnaire could vary greatly in severity and impact on the user, however this study did not weight the consequences in its analyses, but rather added together the number of problems reported to develop a " problem score ". A crude score was devised simply by adding up the number of consequences experienced by each respondent. Four categories according to the number of adverse consequences reported were developed; no adverse consequences, 1-4 consequences, 5-9 consequences, and 10-12 adverse consequences. It is emphasised that these consequences varied considerably in their severity and it is not suggested that a high score was necessarily indicative of more severe problems than a lower score, but rather are to be used as an index of the

total number of " problems " experienced by individual drug users in the 12 months prior to interview. Table 4.14 shows the number of respondents in each category (drug sub-group and " problem " group) who had had contact with a drugs service. Drugs services included statutory and non-statutory services, and community or hospital services. Forty-three percent (n=49) of this study group had had contact with a drugs service.

Table 4.14 : The number of drug users using an agency classified by Sub-group and the number of adverse consequences reported.

	Sub-group 1	Sub-group 2	Sub-group 3	Sub-group 4	Total
No adverse consequences	4 (13)	1 (5)	2 (4)	1 (3)	8 (25)
1-4 adverse consequences	3 (15)	7 (21)	4 (14)	12 (13)	26 (63)
5-9 adverse consequences	0 (0)	0 (5)	2 (6)	9 (10)	11 (21)
10-12 adverse consequences	0 (0)	0 (1)	3 (4)	1 (1)	4 (6)
Total	7 (28)	8 (32)	11 (28)	23 (27)	49 (115)

Numbers in parentheses indicate the number of drug users in each category

Forty-six percent (i.e. 13 out of 28) of cannabis only users (Sub-group One) reported having no adverse consequences of use compared to only 16 percent of the non-opiate poly-users and the 14 and 11 percent of the moderate and heavy opiate users respectively. No cannabis only user reported having experienced more than 4 adverse consequences of their cannabis use. In contrast 19 percent of non-opiate users in Sub-group Two, 35 percent of moderate opiate users and 41 percent of heavy opiate users had experienced more than 5 adverse consequences.

The proportion of respondents who had had contact with a drugs service is seen to be related both to the extent of drug involvement (as indicated by drug using sub-group membership) and the number of adverse consequences reported. Opiate users, in particular those using opiates in excess of 150 days in the previous 12 months, were significantly more likely than other respondents to report contact with drug agencies ($x^2 = 25.57$, df=3, $p < 0.001$). Eighty-five percent of the heavier opiate users had contact with a drugs service. This may appear reassuring but it must be emphasised that the majority of these users were contacted in Network One, which was itself centred around an informal street-based drugs service (see Chapter 3). When network was entered into the analysis as a controlling variable a less clear relationship emerged between extent of drug use and service contact. For example, Network Two which was initiated through contact with youths attending a day centre for the unemployed, contained 17 moderate opiate users (Sub-group 3), 16 of whom had had no agency contact whatsoever. There are many reasons for making contact with a drugs service, one of which is likely to be the extent of problems experienced by an individual and attributed to his/her drug use. Other important reasons are likely to include whether or not other members of an individual's social group are in contact with such services.

Respondents were next asked whether or not they had made contact with a drug service for advice, information or support, and if so, whether or not the advice received had been helpful. The responses thus elicited are shown in Table 4.15.

Over half of the respondents who answered this question had not sought any advice. Of the 7 cannabis only users who had had contact with a service, none had sought advice or information. Informal contacts with these respondents indicated that these individuals had only a general professional interest in the agencies they had contacted.

Forty-five percent of Sub-group 3 users and 35 percent of Sub-group 4 users had not contacted a drugs service for either information or advice. This is of some

importance in that many locally based drug agencies are seen as a social amenity, a meeting place, as well as a therapeutic or counselling service. The implications of this are discussed below.

Table 4.15 : Perceptions of advice received *

Advice received	Sub-group 1 (n=7) n	%	Sub-group 2 (n=8) n	%	Sub-group 3 (n=11) n	%	Sub-group 4 (n=23) n	%	Total (n=49) n	%
No advice sought	7	(100)	6	(75)	5	(46)	8	(35)	26	(53)
No advice offered	-	-	-	-	1	(9)	-	-	1	(2)
Advice helpful	-	-	1	(12)	4	(36)	13	(56)	18	(37)
Advice not helpful	-	-	1	(12)	1	(9)	2	(9)	4	(8)

It is encouraging to note that so many of the respondents in this study had made contact with drug agencies, for whatever reason, and that only 4 of the 22 individuals who had sought advice had found it unsatisfactory.

What is of additional interest is that of the 66 respondents who had *not* had agency contact, only 26 percent (n=17) reported not having experienced any drug-related adverse consequences (see Table 4.14). Fifty-six percent (n=37) reported having experienced between 1 and 4 consequences of use , 15 percent (n=10) reported experience of between 5 and 9 adverse consequences, and 3 percent (n=2) reported between 10 and 12 adverse consequences.

These results indicate that experiencing adverse consequences of drug use did not necessarily lead to contact with a helping agency. As noted earlier the adverse consequences listed in this question varied in severity. Sixty-seven percent of heavy opiate users reported family arguments, and almost 60 percent reported being in

trouble with the police as a direct result of their drug use. These problems and others can have fairly serious implications in both the long and short term. Furthermore, the health problems reported typically related to things such as weight loss, ulceration or thrombosis of veins, and coughs or other infections, although they could also include HIV infection. (The impact of HIV infection upon drug users interviewed in this study are discussed in the next section).

Not everyone who uses an illegal drug will have problems as a result, as obviously this will depend not only on the drug used, but also the mode and frequency of use. One issue that was brought to the author's attention was that of the problems experienced by several respondents as a result (in their views) of regular or heavy use of tranquillisers such as Temazepam or Valium. Valium was frequently referred to as " jail-bait ", with users reporting instances of " doing crazy things " after having consumed these substances, and, as a result, coming into contact with the police. Unprovoked violent acts were not uncommon, and were often attributed to being " out of my head on vallies ". This has been the observation of other authors, such as Gossop (1987) who concludes that minor tranquillisers can :

" ... produce a number of changes in behaviour that can best be described as disinhibition. There are numerous instances of people who have been caught shoplifting while taking these drugs. It is not that the drug itself leads them to commit crimes, but that the fear of punishment, which normally has a deterrent effect, has been chemically suppressed." (p 61)

Therefore consumption of certain kinds of drugs were reported to be more or less related to certain kinds of adverse consequences than others.

The results additionally show that there were many individuals who reported having experienced a variety of social, financial, legal and personal problems as a result of their drug use, who, for a range of reasons chose not to contact a helping agency. For example, only 40% of the moderate opiate users interviewed had made contact with a helping service, in spite of the finding that these users more often reported being involved in violence, arguing with friends and splitting up with a partner than did the heavier opiate users. All of these moderate opiate users reported having drug

using friends and 50% of them had drug using siblings or parents, therefore they had extensive contact with other users.

Figure 4.3 :
Drug-using friends and family

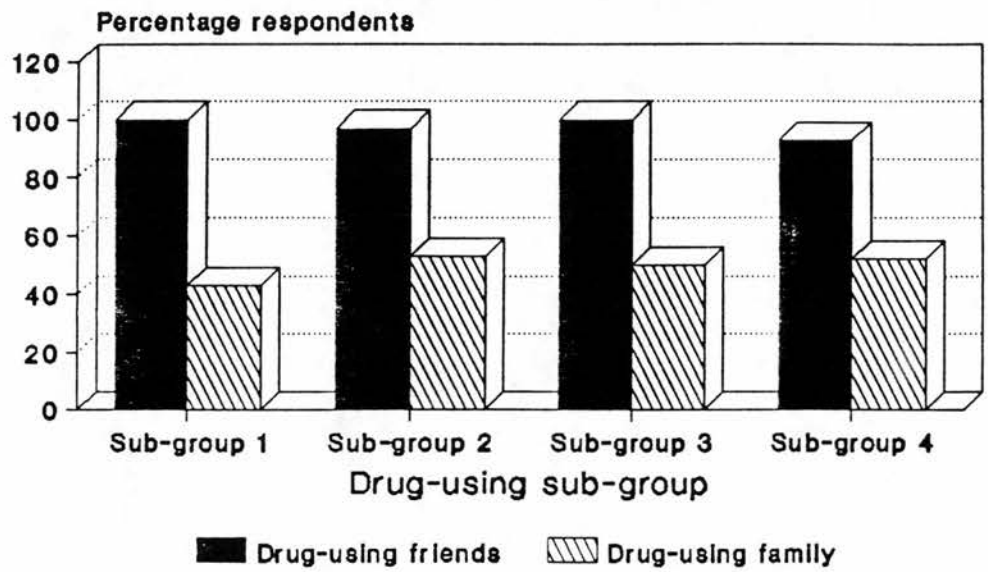


Figure 4.3 above shows the percentages of respondents who reported having drug using friends and/or drug using immediate family members (parents or siblings). No significant differences between the sub-groups in terms of the numbers of individuals with drug using friends or family members were found using chi-square tests.

4.3.4. The impact of HIV and AIDS on behaviour

During the first wave of fieldwork, concern about the prevalence and spread of HIV infection amongst Edinburgh's intravenous drug users was high. At this time (December 1987 - June 1988) statistics showed that of the 1436 identified cases of HIV seropositivity in Scotland, 57% (n=808) involved intravenous drug users. Of the latter, 62% (n=496) had been identified and tested in Edinburgh (ANSWER,

March 1988). Concern was also expressed about the risk of heterosexual infection, a risk that was to be considered relevant to all sexually active persons, whether illicit drug users or not. For the first time condom advertising occurred in the media, and " safer sex " became a catchword not only in the media but also amongst concerned health professionals.

This study addressed the issue of HIV infection in several ways; firstly respondents were asked how much they worried about HIV and what were the reasons for their concern or lack of it; secondly they were asked if this concern had led to any changes in their patterns of a) drug use and b) sexual behaviour. More in-depth questions were asked of those who reported intravenous drug use.

Concern about HIV infection

Respondents were asked whether they worried about HIV " a great deal " or " quite a lot ", " a little bit " or " not at all " (Four respondents did not complete this part of the questionnaire). The responses to this question are displayed in Figure 4.4 where it is seen that concern amongst this study group was high. Not unexpectedly concern was significantly higher amongst the heavy opiate users in Sub-group Four ($x^2 = 21.6$, df = 3; $p<0.01$). Sixteen of the 27 users in this sub-group were injectors who had admitted to having shared injecting equipment at least once in the previous 12 months.

All respondents were asked for reasons for their concern or lack of concern and these results are shown in Table 4.16. In the main, those who expressed little or no concern about HIV infection did so because they neither injected nor had had multiple sexual partners nor unprotected sex. Two young non-opiate users expressed concern because they had shared " glue-bags " with people whom they hadn't known! There were several respondents who reported no concern although they had either injected or shared or both, or had had several partners or unprotected sex.

Figure 4.4 :
Concern about HIV infection

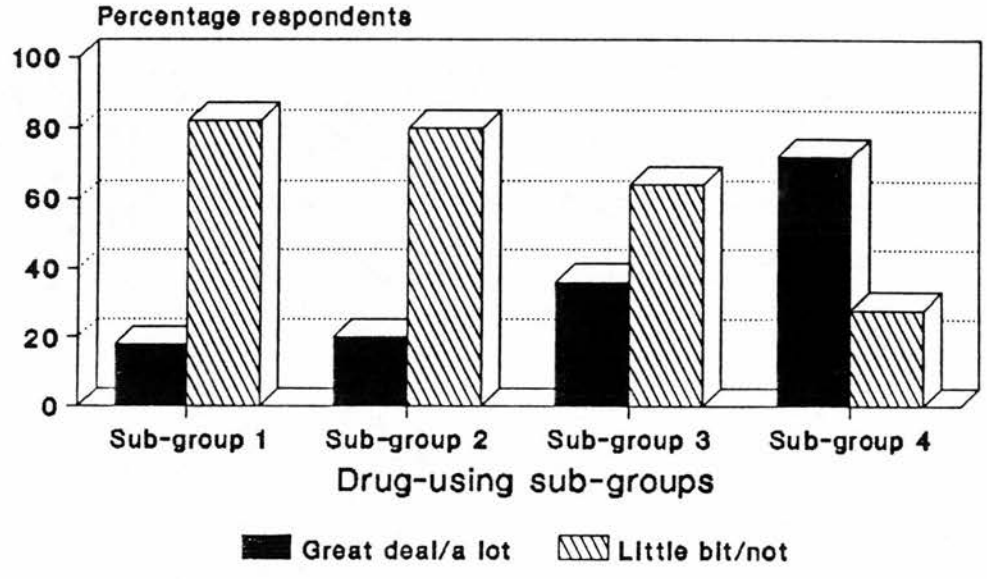


Table 4.16 : Reasons for concern or non-concern about HIV infection

Reasons	Sub-group 1 n	%	Sub-group 2 n	%	Sub-group 3 n	%	Sub-group 4 n	%	Total n	%
Injected and shared	1	(4)	-	-	1	(4)	8	(33)	10	(9)
Unprotected sex	1	(4)	1	(3)	2	(7)	2	(8)	6	(5)
Several partners	2	(7)	2	(7)	2	(7)	4	(17)	10	(9)
Never injected	3	(11)	1	(3)	3	(11)	-	-	7	(6)
No IDU* nor several partners	16	(57)	18	(60)	13	(46)	1	(4)	48	(44)
Other*	5	(18)	8	(27)	7	(25)	9	(38)	29	(26)

* IDU : Injecting drug user

* " Other " included those who said there was simply no point in worrying, and those who had been involved in one or other " risk " behaviour but reported not being concerned.

HIV status

Respondents were asked their current HIV status. Unlike other researchers at this time this author found little reluctance amongst respondents in reporting their antibody status. HIV was a frequent topic of conversation, particularly amongst injectors who all had friends who were infected. Amongst non-injectors, respondents were keen to report their negative status as proof that they were not " junkies ", although the author still pursued the issue of whether or not these individuals used condoms. Overall 60% of this study group had not been tested for HIV antibodies, however this figure is due to the fact that 82 % of cannabis only users and 80% of poly-non-opiate users had not been tested. Sub-group Three contained only 3 current injectors which partly explains why 57% of this group had not been tested, however 89% of this group also reported **never** using condoms .

A significant majority of the heavy opiate users had been tested (84%), 11 individuals tested seronegative and 10 tested positive. One of the 15 moderate opiate users tested antibody positive, no non-opiate users received a positive result. (The 5 ex-injectors in the non-opiate using sub-groups had not injected for an average of 8 years, mainly prior to the advent of HIV infection in Scotland).

HIV and sexual behaviour change

Figure 4.5 displays the percentages of respondents in each sub-group who reported having changed their sexual behaviour as a direct result of their concern about HIV infection. Although only 26 of the 110 respondents who answered this question had changed their behaviour, significantly more of both moderate and heavy opiate users had done so ($x^2 = 7.83$, df = 3 ; $p<0.05$). What is alarming however is that so few of the non-opiate users, particularly those in Sub-group Two, had changed any aspect of their sexual behaviour, since this younger group were considerably active in their sexual relations, albeit usually in a serially monogamous manner. Furthermore, 4 of the 11 HIV antibody positives reported having made no changes to their sexual practices although all eleven were sexually active.

Figure 4.5 :
Percentage changed sexual behaviour

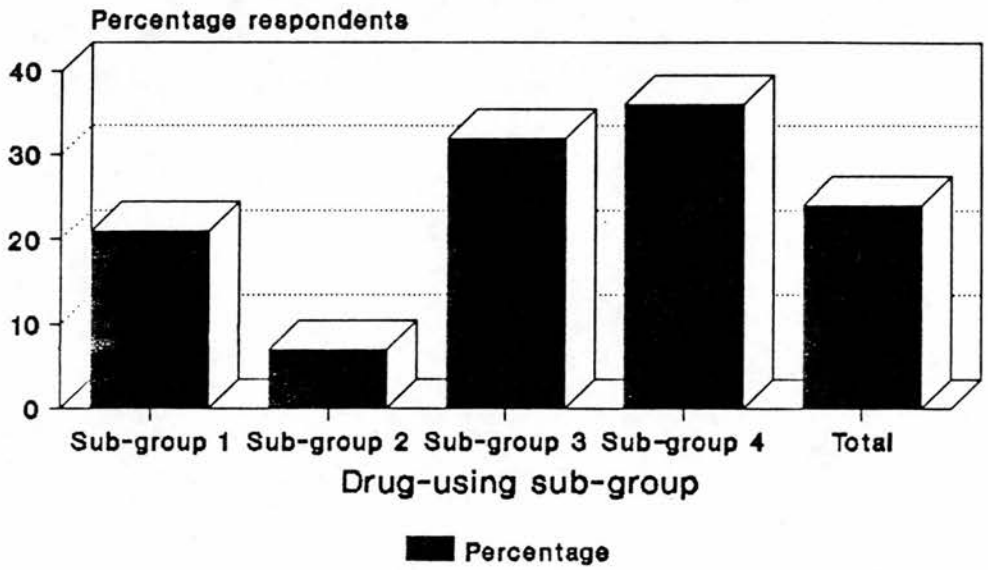


Table 4.17 displays the kinds of sexual behaviour changes reported by the 26 that had done so. Few respondents reported that they always used condoms.

Respondents were asked whether or not they used condoms during current or recent sexual encounters, either as a means of contraception or of risk reduction in relation to HIV infection. Eighty-four percent of Sub-groups One and Two, 89% of Sub-group Three and 76% of Sub-group Four admitted to rarely or never using condoms during sex. As one injector put it;

" Folk may be careful about jagging (injecting) and other folk might not start jagging, but no-one's doing a damn thing to stop screwing around, or using condoms". (February 1988).

Table 4.17 : Kinds of sexual behaviour change reported

	Sub-group 1 (n=6)	Sub-group 2 (n=2)	Sub-group 3 (n=9)	Sub-group 4 (n=9)	Total (n=26)
Always use condoms	1	0	1	2	4
Use condoms more often	1	1	0	3	5
Only have one partner now	3	1	5	2	11
Don't have sex now	0	0	1	1	2
Other*	1	0	2	1	4

* " Other " included those reporting partner 'selectivity', for example those who claimed to be " more careful " about who they have sexual relations with. Also one respondent claimed he " would not go with a girl who injects ".

This result parallels that found in studies elsewhere (e.g. Siegel, 1987; Skidmore, Robertson & Roberts, 1989). " Grey " areas of risk reduction such as being more selective about one's partners were common as illustrated in the following quotation from a young male injector ;

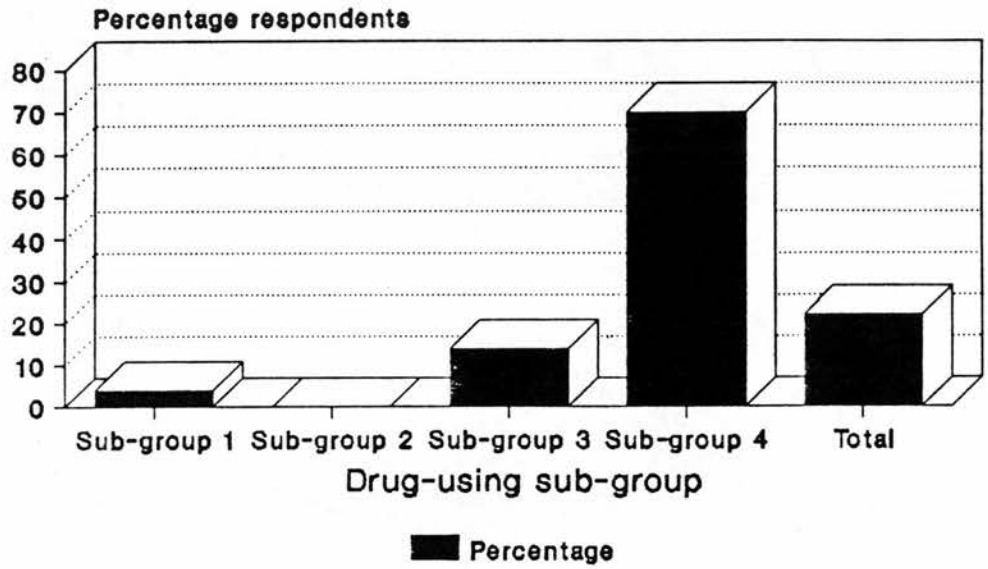
"I never use condoms but I am careful who I sleep with and the girls have all known I have the virus."

Statements such as the above were frequent, and highlight the fact that the onus of responsibility for HIV prevention was often put onto the female partner. This is discussed further in Chapter Five.

HIV and changing drug use behaviour

Changing drug use in response to the threat of HIV infection relates primarily to those users who use drugs intravenously. Figure 4.6 shows that only small percentages of Sub-groups 1 to 3 had changed their behaviour.

Figure 4.6 :
Percentage changed drug use behaviour



The 4 respondents in Sub-group Three who had changed their behaviour were injectors, 2 of whom claimed to have stopped injecting, one had ceased sharing equipment altogether and the other had reduced the frequency with which he shared injecting equipment. The one cannabis only user who reported change was an ex-injector of more than 3 years who reported the fear of HIV infection as the reason he stopped injecting. In contrast 70% (n=19) of the heavy opiate users reported change, of whom 18 gave reasons : 8 had recently stopped injecting, 6 had ceased sharing , and 4 had reduced the frequency of equipment sharing. This reduction rather than cessation of needle and other equipment sharing has been reported in other studies of drug users at this time, in Scotland (e.g. McKeganey, Barnard & Watson, 1989; Robertson et al., 1986; Brettle et al., 1987) and England (e.g. Stimson et al., 1988a, 1988b; Power, Hartnoll & Daviaud, 1988).

Although HIV infection was not at this time particularly " visible " in Edinburgh, i.e. few people in this study group had developed symptoms of HIV-related illness, there was a strong sense of awareness of its presence. Seventy-two of the 115 respondents knew at least one person who was HIV positive, 4 of 11 cannabis users knew more than 6 infected people; 1 of 15 non-opiate users knew 6 or more, 10 of 21 moderate opiate users knew more than 6 HIV infected persons, and finally 20 of 25 heavy opiate users knew at least 6, (17 knew 12 or more). Fifty-five of these 72 respondents claimed that those they knew were infected had been so as a result of intravenous drug use, 8 attributed the infection of acquaintances to their sexual behaviour and 9 thought those they knew could have been infected through either injecting or sexual practices.

Finally, few respondents at this time discussed possible illness and death in relation to HIV and AIDS, and at times the author got the impression that the risk of infection was not being taken particularly seriously among some individuals who openly admitted practising one or more " risk behaviour ". There were several occasions when respondents had claimed during interview to have stopped injecting but were later seen to be doing so, and there were frequent instances of exceptions being made to the earlier reported claim that " I no longer share ", such as, " it was night time and I couldn't get hold of a new set ", " we've been going out together for ages and I know he/she isn't infected so ... ", and " they're my pals, we've always shared, I do if they've none so that if I need a hit they'll let me use their works if I've no got any, they'd get a right cob on (bad mood) if I didnae, it'd be like saying they was dirty and I was clean".

4.3.5. Summary and discussion

Drugs can be smoked, snorted, inhaled, swallowed whole, eaten in food, injected intravenously, subcutaneously or intramuscularly, or drunk. Different substances have different routes of administration, some because of the nature of the substance

which limits the mode of its use, for example, glue, which is usually inhaled from a small container or bag, or tranquillisers which come in tablet form which are usually swallowed. Other drugs can be taken in several ways, for example heroin, which can be smoked or " chased " (i.e. cooked on a piece of tin foil and the fumes are taken up through a straw) or it can also be injected into a vein. As Plant points out :

"Regular use of some psychoactive drugs causes the body to become accustomed to their effects, which accordingly diminish." (1987, p12)

This is oft cited as the reason for drug users with a history of oral drug consumption switching to, (or combining with oral use), injecting practices. Injecting provides quicker intoxication than swallowing or smoking, since the drug enters the bloodstream directly and is absorbed almost immediately which means the user has to wait less time for the " rush " to occur. Stephens (1987) notes that;

" Injection can be either subcutaneous ("skin-popping"), intramuscular (the route favored by physician and nurse addicts), and intravenous (" mainlining"). In general intravenous injecting achieves the greates high with the least amount of drug; *it also poses the clearest danger to the user, both immediately and in the long term.*" (p18, author's emphasis)

One of the major problems facing GP's (general practitioners) issuing drugs to known drug users is the possibility of diversion or leakage through the legitimate receiver selling all or part of his/her " script ". Lewis (1992) describes the trading or swapping of prescribed drugs as :

" part of a lively informal economy, closer to barter than to a truly illicit drug market ." (p21).

Although this may be true, the problem of " seepage " still provides medical professionals with a dilemma ; prescribe or not prescribe? Drug users rarely express satisfaction with the amount of drugs their GP prescribes them, but a proportion (and estimates of the size of this proportion are difficult to find) do adhere to their legitimate supply and do benefit from a regular and clean source of drugs.

Furthermore, many will use methadone religiously as a means of " weaning " them off injecting, others will sell their methadone in order to buy injectables.

Novice drug users were seen to learn from established users how best to use a drug or drug combination, how to get the quickest, best, and sometimes safest, " buzz " . Injecting is considered to be more cost-effective, with smaller quantities being required to achieve the desired effect. As the heroin market diminished in the early 1980's, a growing trend towards the use of pharmaceutical products emerged, such as the increased reports of temgesic (buprenorphine) and temazepam use in Scotland's two major cities, Glasgow and Edinburgh (Haw, 1985; Haw and Liddell, 1987). This use of temgesic and temazepam continues into the Nineties (e.g. Hammersley, Lavelle and Forsyth, 1990) The injection of these substances in this study was found to be more likely amongst those dependent on the black market for their supply, whereas those in receipt of prescriptions for one or both of these drugs could more often afford to take them orally.

HIV infection was seen to have given rise to some concern, particularly among those who had injected drugs and shared needles, however sexual behaviour change across all drug using sub-groups was minimal. This parallels findings from other British studies of illicit drug users (e.g. Stimson et al., 1988a, 1988b; Skidmore, Robertson & Roberts, 1989).

4.4. Correlates of Drug Use

It has been stated previously that amongst the regular illicit drug users interviewed for this study, the use of multiple substances was the norm. This section firstly examines the frequency of use of the various substances under study and concludes that the use of certain substances are correlated with the use of others. Chapter Three outlined the hypotheses to be investigated in this study, one of which was the identification of factors which influence negative consequences of illicit drug use.

This section proceeds with an examination of the factors associated with adverse consequences of drug use reported by respondents at first interview.

4.4.1. Drug-drug combinations and correlations

Respondents were asked to calculate how many days they had used each of the listed substances, licit and illicit in the 12 months preceding interview (see Section 4.2.1). Table 4.18 displays the correlations between the frequency of use of these substances, and it becomes clear that certain groups of drugs are positively correlated in that when one is used frequently, so is another.

The frequency of use of alcohol is significantly correlated with the frequency of methadone use, whereas a negative relationship between days of painkiller use and days drinking was found. Alcohol use was not correlated with the use of any other substances. This may suggest that regular methadone users are less involved in the use of other illicit drugs and thus have more time to drink alcohol, whereas those using painkillers such as DF118's and Temgesic often relied on the black market rather than a prescription and thus were involved in actively seeking out their supply. The frequency of methadone use also positively correlated with the frequency of the use of tranquillisers, perhaps again because tranquillisers were more likely to be received on prescription, possibly from the same prescribing outlet as methadone (see Section 4.3.1.).

Table 4.18 : Correlations between frequencies of use of licit and illicit substances

Substances#	TO	CA	TR	LSD	AM	H	MT	PK	D	CO	G
AL	.03	-.00	-.10	-.04	-.06	-.08	.33**	-.19*	-.08	-.05	-.06
TO		.12	.23*	.01	.12	.06	.12	.21*	.09	.06	.08
CA			.01	.02	.05	.10	-.15	.11	-.07	.14	-.29**
TR				.00	.27**	.03	.33**	.78**	.35**	.21*	-.14
LSD					.06	.02	-.06	.05	-.04	-.02	-.04
AM						.03	.09	.31**	.11	.54**	-.04
H							-.03	.06	.10	.07	-.04
MT								.11	.00	.07	-.07
PK									.42**	.15	-.14
D										.20*	-.06
CO											-.04

AL : Alcohol
TO : Tobacco
CA : Cannabis
TR : Tranquillisers
LSD : LSD
AM : Amphetamines
H : Heroin
MT : Methadone
PK : Opiate-based painkillers
D : Diconal
CO : Cocaine
G : Glue/ solvents

* $p < 0.05$ ** $p < 0.01$

The data do not allow confirmation of these hypotheses unfortunately since respondents were not asked about *simultaneous* consumption of alcohol with any other substance. The only conclusions that can be drawn is that frequent alcohol users were likely to be also frequent methadone users, and not frequent users of opiate based painkillers, and that frequent methadone users were also likely to be frequent users of tranquillisers. Frequent use of cigarettes correlated with frequent tranquilliser use such as that of Valium or Temazepam, and with painkiller use.

In terms of the frequency of use of the opiates, heroin was used by so few respondents and only on a few occasions in the previous 12 months, that not surprisingly no correlations emerged. However the frequency of use of the opiate based painkillers mentioned above was highly correlated with the use of tranquillisers, diconal and amphetamines (all significant at the $p < 0.01$ level), slightly correlated with the use of cigarettes and negatively correlated with freqent alcohol use. Frequent users of such opiates were commonly frequent users of a variety of other substances. Cocaine use was highly correlated with, as one might expect, the use of the other stimulants, amphetamines. Finally, cannabis use correlated only with one other drug, that of glue or solvent; the more frequent the cannabis use, the less likely was the use of solvents.

Respondents in this study were mainly multiple substance users. They were asked if they could think of any reason that they would stop using any of the drugs that they used, and it was found that those who used cannabis only were significantly less able to think of a reason for stopping than any of the users in the other sub-groups. These data are displayed in Table 4.19.

Table 4.19 : Percentage of respondents who could provide a reason for stopping use

Sub-group 1 (n=28)	Sub-group 2 (n=32)	Sub-group 3 (n=28)	Sub-group 4 (n=27)	X^2
68	94	86	85	p=.05

Respondents were also asked whether or not they would recommend the use of illicit drugs to other people if they were asked, and again the difference between the drug using sub-groups approached significance, with cannabis only users being most likely to, and moderate opiate users being least likely to recommend use. That moderate opiate users would not recommend drug use is interesting since this sub-group was composed of a lot of younger users who had not been involved in illict drug use for as long as the other users. Table 4.20 presents the percentages of respondents in each sub-group who claimed they **would** recommend the use of illicit drugs to others if asked. It must be pointed out here that although a lot of respondents said that they would recommend use, (e.g. 22% of the high opiate users), many qualified their answers by saying that it really was up to the individual and that it was not their responsibility to dissuade someone.

Table 4.20 : Percentage of respondents who would recommend illicit drug use

Sub-group 1 (n=28)	Sub-group 2 (n=32)	Sub-group 3 (n=28)	Sub-group 4 (n=27)	X^2
36	19	7	22	p=.07

What is important from looking at the above table is the comparatively **low** percentages of these regular illicit drug users who said they would recommend use to others if they were asked by someone whether or not to try something. In all sub-groups the vast majority of respondents would **not** recommend illicit drug use.

4.4.2. Correlates of adverse consequences of illicit drug use and involvement in drug use

Since the majority of respondents in this study, as in others, used more than one mind-altering drug it is difficult to distinguish what or which substance may have caused any one negative experience. This section acknowledges this limitation and sets out instead to look at correlates of negative experiences attributed *by the drug users themselves* to their drug use, rather than attempting to identify any particular drug as the cause of adverse consequences.

It was hypothesised that the experiencing of negative consequences of drug use may be a function of involvement in drug using lifestyles. Variables relating to length of drug using career (i.e. current age minus age at first use of cannabis, was the formula used here; cannabis being selected since it was the **usual** illicit drug to have been tried first), level of social support, income from drug dealing, other legitimate and illegitimate income, legitimate and illegitimate expenditure, expenditure on drugs, and the number of adverse consequences of alcohol use reported, were correlated with the number of adverse consequences attributed by respondents to their drug use. Social support was calculated by devising an index composed of the variables listed in Figure 4.7.

Figure 4.7 : Devising a scale of social support

Variable	Possible score
Marital status	
Single + no relationship	0
In relationship/ cohabit/ married	1
Support and company at home	
Live alone	0
Live with friends	1
Live with family	2
Family relationship	
No family/ bad relationship	0
Occasionally good relationship	1
Most/always good relationship	2
Employment status	
Unemployed	0
Employed	1
Mother's employment status	
Unemployed	0
Employed	1
Father's employment status	
Unemployed	0
Employed	1
Discuss problems/confidante	
Never/ no-one	0
Special person	1
Ease of sharing problems	
Never share	0
Some things easy	1
Easily share most things	2
Maximum possible score	*11*

A score of the maximum, eleven, would indicate that a respondent had good levels of both instrumental and social support. The mean social support score for the total study group (n=115) was 5.97, s.d 2.04. When the mean levels of support were compared for the four drug using sub-groups a significant difference emerged whereby those in the non-opiate using sub-groups 1 and 2 had higher mean levels of support than the opiate users in sub-groups 3 and 4 who more often reported low or moderate levels of social support ($F = 8.011$, $df = 3, 111$, $p < .001$). Less social support was found to be related to drug dealing activity plus the use of illicit

drugs other than cannabis in a study of young (mean age 15 years) drug users in Glasgow (Hammersley, Forsyth & Lavelle, 1990).

The mean length of drug using career significantly differed between drug using sub-groups, with the cannabis only users (Sub-group 1) having a mean career of 11.6 years; the non-opiate users (Sub-group 2), 10.5 years; moderate opiate users (Sub-group 3), 6.3 years, and the high opiate users (Sub-group 4), 10.5 years ($F = 4.394$, $df=3,111$, $p < .01$).

A correlation analysis was carried out using the continuous variables already mentioned and the coefficients obtained are displayed in Table 4.21.

Table 4.21 : Correlations with drug-related adverse consequences #

Variable/ measure	Correlation coefficient	Significance
Cigarette use (days)	.2107	*
Cannabis use (days)	-.2350	*
Painkiller use (days)	.2325	*
Diconal use (days)	.2032	*
All opiate use (days)	.2705	**
Tranquilliser use (days)	.2843	**
Solvent use (days)	.3684	**
Age	-.2773	**
Career length (years)	-.1855	**
Alcohol problem score	.2582	**
Social support level	-.2232	*
Legitimate income	-.2661	**
Illegitimate expenses	.2332	*
Drug expenses	.2302	*

Only significant correlations are displayed

* $p < 0.05$ ** $p < 0.01$

Not significantly correlated with drug-related adverse consequences were : frequency of alcohol, LSD, amphetamine, heroin, methadone or cocaine use; income from drug dealing, illegitimate income, or legitimate expenditure.

(Although this table displays only significant correlations it must be further noted that the correlations are in fact low).

The experience of drug-related adverse consequences was positively correlated with the frequency of use of several drugs including opiate-based painkillers, diconal, tranquillisers and solvents. In terms of individual opiate and overall opiate use (i.e. this measure included heroin, methadone, painkillers and diconal) the correlations are not surprising since Table 4.13 showed that most of the listed consequences of illicit drug use were reported more frequently by those in the opiate using sub-groups. The more frequent the use of solvents, (although use was limited to only 15 respondents, mostly in Sub-group Two) the more adverse consequences of drug use experienced. The correlation between tranquilliser use and adverse consequences may, in part, be due to the disinhibiting effects of these substances which can sometimes lead to problematic behaviour, as discussed in Section 4.3.3.

The more days on which cannabis had been used in the preceding 12 months, the fewer adverse consequences of drug use reported. Cannabis use has rarely been attributed to problematic behaviour or relationship disturbances (e.g. Wootton Committee, 1968; Gossop, 1987).

Adverse consequences of illicit drug use were more common amongst younger respondents and those with shorter drug using " careers ", although these two measures are obviously confounded. The greater the number of alcohol related adverse consequences reported, the greater the number of illicit drug related consequences, suggesting perhaps that the use of mind-altering drugs in general can lead to negative experiences.

Lower levels of social support were correlated with higher numbers of adverse consequences of drug use, as were lower legitimate incomes and higher illegitimate and drug expenses.

Therefore experiencing negative consequences of drug use seem to be related not only to drug type and frequency of use, but also to alcohol related problems, financial situation, and external factors such as levels of social support.

Finally, in this section, two categorical variables thought to relate to involvement in drug use were analysed using chi-square tests . These variables were whether or not respondents had injected, and whether or not they had used opiates. For these analyses the drug problem score was sub-divided (on the basis of its frequency distribution), into four sub-groups: no problems reported; 1-4 problems; 5-9 problems; more than 10 problems. Both having injected and having used opiates (ever) were significantly associated with experiencing more adverse consequences of drug use ($x^2 = 11.17$, df=3, $p < .05$ and $x^2 = 14.36$, df=3, $p < .01$ respectively).

4.4.3 Summary and discussion

Highly significant correlations were found between the frequency of use of certain substances such as tranquillisers and opiate-based painkillers; or cocaine and amphetamines. This goes some way towards confirming that users have a preferred " menu " of drugs that they select for their similar properties, for example users of stimulant drugs tend not to use opiates regularly (if at all) and vice versa. This is supported in the work of Johnson (1980) who hypothesizes that there are different types of drug sub-cultures, for example those that use and inject heroin, those that use and abuse alcohol, those that use cannabis, and those that use multiple drugs. He claims that each sub-group has norms that support the use of particular drugs or sets of drugs. Plant notes (1987, p35) that " Psychoactive drugs by definition alter the user's mental state, either slowing, speeding or distorting perceptions" ; the author contends that drug users know which drugs will give them the altering of mental state they desire at any point in time and thus certain " slowing " drugs tend to cluster together, as does the use of certain " speeding " drugs.

A significant majority of users of all substances could provide reasons as to why they should stop using the drugs they did, however cannabis users were significantly less likely to produce such reasons for non-use of cannabis. These same cannabis users were more likely to admit that they would recommend cannabis use to others if their opinion were solicited. Many pointed out that " it's less harmful to all concerned than regular drinking". Opiate users were, perhaps surprisingly, no less likely to recommend opiate use than non-opiate users recommended use of non-opiates in Sub-group 2.

It appears then that these regular illicit drug users had awareness of the negative side of illicit drug use even though it was an established part of their everyday life. (Cognitions about use are explored further in Chapter Five when beliefs and cognitions about use at this first interview are related to behaviour change by the time of the second interview, 18 months later).

A relationship was found between factors indicative of involvement in drug-using lifestyles, such as using opiates, having injected, and having low legitimate incomes and high illegitimate expenses. Although most research concedes that not all drug use leads to negative consequences, the isolation of certain factors that may be predictive of negative outcomes have important prevention implications. The predictive nature of involvement variables are again discussed in terms of the longitudinal data in Chapter Five.

CHAPTER FIVE : THE FOLLOW-UP STUDY AND CHANGING PATTERNS OF DRUG USE

5.1. Methods of Follow-up

5.1.1. Refining the interview schedule

In order to assess change it was necessary to retain the bulk and format of the original interview schedule. However, modifications were required in certain sections and were carried out in consultation with colleagues and representatives of the Scottish Home and Health Department (now the Scottish Office, Home and Health Department). The main changes were as follows :

a) details were obtained for only the two most frequently used illicit substances in the previous twelve months, rather than four as at first interview. This was primarily in order to reduce the length of the interview and secondly because the 'top two' had provided adequate information for the main analyses.

b) The HIV/AIDS section was expanded to take into account developments in recently completed research studies (e.g. McKeganey, Barnard & Watson, 1989; Stimson et al., 1988a, 1988b; Tempesta & Di Giannantonio, 1988), whereby it was no longer considered sufficient to inquire as to whether needle and syringe sharing (lending *or* borrowing) occurred, but to include the sharing of the paraphernalia that accompanies injecting, for example the spoon used to cook the heroin. A wider range of potential sexual behaviour changes were examined, in addition to the use of condoms.

c) The alcohol and tobacco sections were shortened since the author was focussing on illicit drug use and the primary interest in alcohol was to get an indication of the frequency of alcohol use amongst the four drug-using sub-groups and the level of

polydrug use. These data were obtained with the repeated use of the drugs chart (see Appendix One for details).

d) Some questions were omitted because they were " static " variables unlikely to have altered in the intervening period; a few were retained so as to allow some consistency checks.

The interview was to be carried out as before on a one-to-one basis unless this was impossible, for example if a respondent asked that a partner or friend stay with him/her. All answers were recorded by the interviewer. The majority of questions were pre-coded but with more alternatives added to some as a result of the Wave One experience. (A copy of the final interview schedule is contained in Appendix One. The Wave One interview schedule has not been attached since the follow-up schedule contains all the information that is presented in this thesis).

5.1.2. The timetable

Respondents were to be traced and reinterviewed eighteen months after their initial interview. In reality the gap between 1st and 2nd interview ranged from 15 to 24 months due to difficulties in relocating some subjects (see 5.1.3.).

The timetable adopted for the second phase of this study was as follows :

June - August 1989	Revising and designing interview schedule. Re-establishing links with local contacts and organisations. Retraining interviewers.
September 1989 - April 1990	Attending the locations where initial interviews took place, re-establishing contact with the drug users and tracing study respondents. Seventy-two respondents were successfully traced and reinterviewed. Some information was obtained for an additional 18 of the original respondents.
May - July 1990	Coding of questionnaires and data entry. Cross-sectional analyses of follow-up data.
August 1990 - April 1991	Setting up of the longitudinal system files. Longitudinal and comparative analyses.

5.1.3. Problems of retracing respondents

Respondents had been asked at first interview to give their names (or nicknames if these were more acceptable) plus up to three contact addresses; one for the place of interview, one for the respondent's current address (if different from the former) and an address of a close family member (or friend if this was more acceptable). On the basis of this information the author and the other interviewers began to retrace individuals some four weeks before the follow-up period was due to commence. This was in order to inform people that they would be contacted within the next month, and if respondents could not be traced at the original contact point, attempts were made to contact them by letter or phone, or both, at one of the other

addresses given. In some cases respondents had only given one address (that of the place at which they were first interviewed), thus attempts were made to track down these individuals by contacting other members of their original social network and enquiring as to their whereabouts.

A number of problems were encountered at the outset of the follow-up phase of this study :

a) Mobility : Illicit drug users are reputedly geographically mobile (e.g. Fraser & George, 1988; George & Fraser, 1989). Rehousing from one local authority housing development to another is common, as are short-term departures from home to seek employment, a new life, a better supply of drugs, or treatment. Furthermore imprisonment frequently removes some individuals from their homes and even home towns for varying lengths of time. This was found to be the case in this study. Four respondents had reportedly left Edinburgh for work and three were in prison. Eight could not be traced at any of the contacts given, despite telephone calls and letters, and so personal visits to the addresses were made by the author only to discover that the person had moved without leaving a forwarding address. A further seven were not traced, although they were reportedly still within the Edinburgh area. Therefore although few had actually left the city boundaries, a certain amount of movement within the city was evident, primarily through District Council rehousing programmes or rehousing requests coming to fruition.

Of the 72 actually interviewed, 12 respondents were traced to new addresses and interviewed there. Twenty-eight were interviewed at the same home address, 24 at the same 'centre', five at a different 'centre', two were interviewed in hospital and one made telephone arrangements to be interviewed in a local cafe.

b) Failure to keep appointments

On many occasions the author met and talked to potential respondents several times before an interview was scheduled. Once arranged, however, sometimes as many as half a dozen appointments were broken by the respondent. This is also the

experience of other professionals working with illicit drug users (e.g. Greenwood, 1991 (personal communication); Brettle , 1990). Four respondents were never " pinned down " in spite of numerous appointments being agreed to verbally. In these and other instances the author gathered some information about the individuals concerned, but data from these individuals are not included in the analyses since no formal interview took place.

c) Interviewer loss

The interviewer who accessed Network Four , thus obtaining eleven interviews, unfortunately left Edinburgh to join a youth project in the USA prior to the start of the follow-up phase. Furthermore those individuals he interviewed had chosen not to give additional contact addresses other than his and so all eleven individuals were lost to the study. (The author had sanctioned this group of users not given addresses since otherwise they would not have participated in the study .)

d) Relationship with interviewer

The author conducted 69% of the original interviews. She had developed good relationships with about two-thirds of her respondents, but was not really in a " bargaining " position to encourage users to take part in the second interview. For example, she could not offer formal counselling, medication, social enquiry reports, financial incentive or even an enduring friendship. In contrast the interviewers of Networks Three and Five had utilised existing personal contacts to obtain their original interviews and thus had maintained contact with most of their respondents over the eighteen months between data collection phases.

e) Changed circumstances of respondents

Seven respondents were reported to still live in the Edinburgh area, five of whom were thought to have taken up full-time employment; however these individuals had lost contact with their " friends " from the first interview period, and had presumably moved on to a new social network. All seven were lost to the study.

f) Refusals

Three respondents refused to take part in the second interview, giving as a reason that " nothing has changed since the first time ". Two also mentioned the length of the interview which probably prompted them not to take part.

g) Time

As stated previously it had been hoped to interview respondents as close to 18 months after the first interview as possible. It is likely that several more interviews could have been obtained had fieldwork been extended; however there had to be a " stopping time " and it was decided that it should be eight months.

h) Response rate

In spite of these difficulties , 72 of the original 115 respondents were reinterviewed. This is a follow-up rate of 63% which is not unexpected given the nature of the population studied and since the author was not a clinician pursuing a clinic attending population, and therefore did not have access to medical records for updated addresses. Another Scottish follow-up study of a " snowball " sample of drug users, achieved a 55% follow-up rate after 9-12 months (Hammersley, Lavelle & Forsyth, 1992). These results do not differ significantly ($x^2 = 1.66$, df = 1), but confirm that following up drug users in the community is likely to encounter some difficulties due to the relative mobility and often evasiveness of such groups.

5.2. The Study Group

Forty-five (62.5%) of those followed up were male, 27 (37.5%) were female. The mean age of the males was 27.7 years (sd = 7.5), with a range from 19 to 45 years. Females were on average, older with a mean age of 29.6 years (sd = 7.6) however their ages ranged from 18 to 41.

Twenty-seven respondents were employed, forty-four were unemployed - seven had never worked. Thirty-two of these individuals had been working at the time of first interview, hence five had become unemployed during the intervening period. The mean socioeconomic status (ses) for those working was 3.4 for males (i.e. non-manual-manual skilled) and 2.3 for females (i.e. intermediate - non-manual skilled). For those currently unemployed details of any prior employment were sought and for males the mean ses was 4.8 (manual - semi-skilled) and for females 3.9 (non-manual - manual). Fifty-seven percent of those unemployed had been without work for more than 2 years (N=25).

Thirty-five percent (N=25) of the study group defined themselves as being single, although the 11% who were divorced or separated also defined themselves as currently single (i.e. not involved in a relationship), therefore 46% in total will be referred to as single. The remainder were married or cohabiting. Sixteen respondents who had been single at first interview were now cohabiting, ten of them had been in a relationship at first interview. Forty-two percent of the study group had no children, 33% had one child and 25% had two or more children. Nine new births had taken place between data collection phases, five of which were first pregnancies.

Forty-nine percent of those re-interviewed had left school prior to their 16th birthday. Twenty-eight percent of the 72 respondents had no formal academic qualifications, 31% had a Certificate of Secondary Education (CSE) or O' Grades only, 4% had Higher Grades and 35% had a college diploma or above. (Two respondents did not complete this question).

There was a slight shift towards rented accommodation at the time of follow-up. Five respondents had given up private ownership and moved into the renting sector. There were four more individuals renting from the private sector and three more renting from the Council. Two respondents had moved from bed and breakfast lodgings to rented accommodation.

5.2.1. Respondent versus non-respondent characteristics

For the reasons previously described, 43 respondents were lost to the follow-up phase of this study. Eleven cannabis only users; 12 poly, non-opiate users; 11 moderate opiate users and nine high opiate users were not reinterviewed. No significant difference was found between these drug-using sub-groups in terms of the numbers reinterviewed versus the numbers lost ($x^2 = 0.268$, df = 3; NS). In terms of the nature and frequency of illicit drug use there was therefore little difference between those lost and those who participated in both data collection phases.

The ages of those lost to follow up ranged from 16 to 40 years (the age range for the total study group at first interview being 16 to 43 years), the vast majority were male (n=34, 79%), and the mean level of social support was 6.0. This does not differ from those reinterviewed of whom 63 percent were male and the mean level of social support was 6.3 .

The majority of those not followed up were single (72 % compared to 64 % of the total group recruited to the study), and 42% were employed (44% of total group were employed at first interview).

In terms of demographics there therefore appears to be little difference between those respondents who were traced for reinterview and those who were not.

5.2.2. Patterns of drug use

The same procedure as used during the first wave was employed to allocate respondents into one of four sub-groups i.e. cannabis only, poly, non-opiate use, moderate opiate use and heavy opiate use. Table 5.1 shows the number of respondents that were in each sub-group at the two interview points.

Table 5.1 : Distribution of respondents amongst sub-groups

Sub -group	Wave one n	Follow up n	Change n *
Cannabis only	17	13	-4
Poly, non-opiate	20	25	+5
Moderate opiate	17	16	-1
High opiate	18	18	=

* '-' : a smaller 'n' in the drug-using group at follow -up
'+' : a larger 'n' in the drug-using group at follow-up
'=' : the same 'n' in the drug-using group at both data points

This table does not, however, allow for individuals who moved from one sub-group to another therefore an elaboration of these data is presented in Figure 5.1 below :

Figure 5.1 : Follow-up status of original sub-group members

Sub-group One :	Original n = 28, 17 re-interviewed (61%)	
	8 respondents remained cannabis only	=
	8 respondents now poly-non-opiate	+
	1 respondent now moderate opiate	++
Sub-group Two :	Original n = 32, 20 re-interviewed (63%)	
	13 respondents remained poly-non-opiate	=
	2 respondents now moderate opiate	+
	5 respondents now cannabis only	-
Sub-group Three:	Original n = 28, 17 re-interviewed (61%)	
	10 respondents remained moderate opiate	=
	3 respondents now heavy opiate	+
	4 respondents now poly-non-opiate	-
Sub-group Four :	Original n = 27, 18 re-interviewed (67%)	
	15 respondents remained heavy opiate	=
	3 respondents now moderate opiate	-

KEY : ' +' : moved "up" one sub-group (e.g. from cannabis only Sub-group One to poly non-opiate Sub-group Two)
'++' : moved "up" two sub-groups (e.g. from Sub-group One to Sub-group Three)
' -' : moved "down" a sub-group (e.g. from Sub-group Two to Sub-group One)
' =' : remained in the same sub-group at both data collection points

Sixty-four percent of those re-interviewed (n=46) were placed in the same sub-group as at first interview. Of those that could have been categorised as " progressors " (i.e. Sub-groups 1, 2, and 3) 26% (i.e. 14 of 54) had " progressed " to a higher sub-group (one respondent had moved from cannabis only use to moderate opiate use). All respondents could have " reduced " the level or nature of their substance use, in that Sub-group One users could have stopped using cannabis , and 17% of respondents (12 of 72) had, in fact, done so..

The " progressors " and " reducers " are discussed further in section 5.3.2. The final part of this section describes the nature of drug use that was taking place at the time of follow-up.

In order to investigate whether or not any changes had occurred in the frequency of use of the substances listed in the interview, the frequencies of use were examined at both interviews , and compared. Tables 5.2. and 5.3. present the mean days of use for females , and for males, at both time points, and the number of respondents who reported using each substance at each time. (To conduct these analyses only the data from the 72 respondents who took part in both phases of this study were extracted from the original data set).

In the 12 months preceding follow-up interview a smaller percentage of females than males had used *alcohol*, *cigarettes*, *cannabis*, *solvents*, *tranquillisers*, and *methadone*. However, only the difference between male and female use of solvents approached significance ($x^2 = 3.75$, df = 1, NS), with 4% of females having used solvents compared to 20% of male respondents. (No females reported using hallucinogens therefore a statistically significant difference was found ($x^2 = 5.4$, df = 1, $p<0.05$)).

Table 5.2: Frequency of substance use (days in preceding 12 months) - Females

Substance	Wave One n = 27 Mean (sd) n	Follow up n = 27 Mean(sd) n	Change in 'n' using
Cigarettes	338 (74) 26	316 (109) 24	-2
Cannabis	204 (128) 27	233 (112) 25	-2
Tranquilliser	169 (146) 14	213 (146) 13	-1
Alcohol	140 (99) 27	132 (104) 25	-2
Painkillers*	130 (150) 11	162 (158) 14	+3
Methadone	96 (110) 7	131 (145) 5	-2
Diconal	78 (103) 2	18 (18) 2	=
Cocaine	8 (8) 5	9 (12) 10	+5
Amphetamines	6 (5) 8	6 (9) 8	=
Heroin	5 (3) 4	3 (2) 3	-1
Hallucinogens	2 (1) 2	- (-) -	-2
Solvents	2 (1) 3	1 (-) 1	-2

* " Painkillers " primarily included DF118's (dihydrocodeine), and Temgesic (buprenorphine) although any other opiate analgesic was included in this grouping e.g. morphine, opium, etc.

On the other hand, a higher percentage of females than males had used several substances; *heroin*, *diconal*, *amphetamines*, *cocaine* and *opiate-based painkillers*, although none of these differences were statistically significant. It must be noted however that these substances were used by only a few respondents of either sex, with perhaps the exception of opiate-based painkillers.

The frequency in terms of days in the previous 12 months of tranquilliser and opiate-based painkiller use amongst females and methadone use amongst both males and females, (but more noticeably for males) had increased between the two interview points, perhaps reflecting changing prescribing policies. The frequency with which Diconal was used fell sharply for both sexes and five fewer males reporting having used this Class A drug in the 12 months prior to follow-up interview. Many reports of low availability of this drug, which can not be prescribed in the treatment of drug dependence, were made to the author, and, at the time of fieldwork in 1989/90 Diconal fetched the street price of £8 per tablet.

An explanation for why a rise is seen in the number of females illicitly using painkillers, when over the same time period five fewer male respondents had used these substances, is difficult to find unless it is some reflection of changes in prescribing practices. This however seems an unlikely explanation given that other local research was finding that fewer women were attending the Community Drug Problem Service (which carried out prescribing) than males (e.g. Bury, 1989; Greenwood, 1991).

Table 5.3 : Frequency of substance use (days in preceding 12 months)- Males

Substance	Wave One n = 45 Mean(sd) n	Follow up n = 45 Mean(sd) n	Change in 'n' using
Cigarettes	355 (23) 43	346 (70) 44	+1
Cannabis	177 (125) 44	198 (120) 44	=
Solvents	150 (103) 9	129 (100) 9	=
Alcohol	136 (96) 44	128 (103) 43	-1
Tranquilliser	131 (121) 24	134 (126) 25	+1
Painkillers*	123 (141) 23	88 (122) 17	-5
Diconal	88 (129) 7	41 (56) 2	-5
Methadone	65 (117) 10	203 (161) 13	+3
Heroin	17 (22) 7	2 (1) 4	-3
Amphetamines	9 (14) 16	7 (7) 11	-5
Hallucinogens	3 (4) 11	8 (17) 8	-3
Cocaine	3 (4) 11	24 (59) 11	=

* " Painkillers " primarily included DF118's (dihydrocodeine), and Temgesic (buprenorphine) although any other opiate analgesic was included in this grouping e.g. morphine, opium, etc.

Overall the frequency of consumption of opiates was down, with the exception of methadone. Since the spread of HIV infection had continued in Edinburgh, methadone had become more available; two new prescribing outlets emerged where there was no requirement to be HIV positive before being issued with a prescription.

Cocaine had also been used by more respondents (females) and with greater frequency (males). Cocaine had reportedly been more frequently available over the preceding 12 months, with several users reporting that what had been 'High day and Holiday' in the year preceding first interview, had become more often 'weekend' or 'monthly' use within the last year.

A Oneway Analysis of Variance (ANOVA) was carried out to compare mean frequency of consumption amongst females with that amongst males at first interview. Only solvents differed significantly in their use. The number of those using solvents was low (3 females and 9 males only) so the statistical significance is more impressive ($F = 5.73$, $df = 1,10$; $p < 0.05$). When the same analysis was performed for the second interview data, no significant gender differences between the frequency of use of any of the listed substances were found.

Adverse consequences of use

Using the data for the 72 respondents who took part in both interviews, the experience of adverse consequences was examined to see whether any sub-group differences emerged separately for each time point. This is only important in terms of describing the character of the **sub-groups** of users at each data collection period, rather than in terms of individuals experiencing different or additional problems over time, since different individuals make up the sub-groups at each stage. The results of two methods of analysing the first interview data are shown in Table 5.4, where the data for all four sub-groups are shown, followed by the same data collapsed into 2 groups i.e. Sub-groups 1 and 2 combine to produce a " non opiate using group " (N.O), and Sub-groups 3 and 4 combine into an " opiate-using group "(O). The reason for displaying both sets of results is that the small number of respondents having experienced some of the listed adverse consequences, made 4 x 2 chi-square tests invalid due to cells having expected frequencies (EF)of less than five. For those that are valid the findings can point to interesting specific

differences between the original 4 sub-groups. The 2 x 2 analyses allows us to draw some additional conclusions about the differences in adverse consequence experience between respondents who use opiates (to varying degrees) and those who do not.

Table 5.4 : Adverse consequences of drug use at first interview

n	Gp1 17	Gp2 20	Gp3 17	Gp4 18	(x^2)	N.O 37	O 35	(x^2)
Rows family	3	5	11	12	(14.5)	8	23	(14.3)
Rows friends	1	4	8	5	(NV)	5	13	(5.4)
Rows partner	2	8	8	10	(7.9)	10	18	(4.5)
Split partner	0	3	6	5	(NV)	3	11	(6.2)
Health problems	2	3	5	9	(NV)	5	14	(6.5)
Money problems	0	5	6	9	(NV)	5	15	(7.7)
Work problems	0	2	5	1	(NV)	2	6	(NV)
Been sacked	0	1	2	2	(NV)	1	4	(NV)
Banned	0	6	10	7	(14.1)	6	17	(8.7)
Trouble police	4	9	10	10	(NS)	13	20	(NS)
Imprisonment	0	2	3	7	(NV)	2	10	(6.9)
Violence	1	5	9	8	(10.5)	6	17	(8.7)

4 x 2 chi square		2 x 2 chi square	
Rows family, banned	: $p < .01$	Rows family	:$p < .001$
Violence	: $p < .02$	Money problems, banned,	
Rows partner	: $P < .05$	Imprisoned, Violence	:$p < .01$
		Split partner, health problems	:$p < .02$
		Rows friends, Rows partners	:$p < .05$

NS - not significant
NV - not valid calculations due to EF < 5.

The second interview data are presented in the same format in Table 5.5.

What emerges from the analyses calculated with the four drug using subgroups is that cannabis users at both interviews are least likely to have experienced adverse consequences as a result of their substance use. Poly, non-opiate users in Sub-group 2 have experienced a range of problems, from having rows with family, partners and friends, to being banned from licensed premises, being involved in violence and

getting into trouble with the police. Almost as many of these non-opiate users had been in trouble with the police as the moderate and high opiate users. Those using moderate amounts of opiates also report having experienced a variety of adverse consequences of their substance use, but at both interviews, greater numbers of the heavier opiate users have experienced most of the listed consequences.

When the groups are collapsed, much the same pattern emerges, except that this time it is simply the act of using opiates as opposed to not using opiates that produces statistically significant differences, with consistently larger numbers of opiate users at both interviews having experienced adverse consequences of their drug use than non-opiate users.

Table 5.5 : Adverse consequences of drug use at second interview

n	Gp1 13	Gp2 25	Gp3 16	Gp4 18	(x^2)	N.O 37	O 35	(x^2)
Rows family	2	8	11	14	(11.3)	10	24	(10.7)
Rows friends	0	4	5	9	(NV)	4	14	(5.2)
Rows partner	1	5	9	14	(15.5)	6	23	(14.7)
Split partner	0	0	2	11	(NV)	0	13	(NV)
Health problems	2	4	4	14	(12.3)	6	18	(6.9)
Money problems	1	5	7	6	(NV)	6	13	(3.8*)
Work problems	0	1	2	2	(NV)	1	4	(NV)
Been sacked	0	0	1	2	(NV)	0	3	(NV)
Banned	0	5	6	5	(NV)	5	11	(NS)
Trouble police	3	8	9	9	(NS)	11	18	(4.3)
Imprisonment	0	2	3	9	(13.1)	2	12	(8.9)
Violence	0	6	5	7	(NV)	6	12	(3.6*)

4 x 2 chi square
Rows partner, health problems, imprisoned : $p < .01$
Row family : $p < .02$

2 x 2 chi square
Rows partner : $p < .001$
Row family, health problems,imprisoned : $p < .01$
Rows friends, Police : $p < .05$

* Money problems and involvement in violence approached significance ($p = .05048$ and $p = .056$ respectively

NS - not significant
NV - not valid calculations due to EF < 5.

Unfortunately the follow-up interview schedule did not ask respondents to report adverse consequences experienced over the intervening period of 18 months but rather respondents were again asked if they had *ever* experienced any of the list of problems. Thus, an increase in reporting of problems by any individual may simply measure recall error, or changed acknowledgement that a specific drug may have caused a specific problem, **rather** than measuring whether the problem had occurred for the first time during the 18 month period.

5.2.3 Summary and discussion

It may have been expected that of those not retraced for second interview, the majority would be in the " heaviest " drug-using sub-group. This was not, however, the case with most of these heavy users being found in the same location as before, with very little change in either their drug use, their living situation or their friendships. Overall, those reinterviewed appeared to have been representative of the total study group in terms of their drug use and basic demography at first interview.

The 72 respondents re-interviewed showed a significant amount of change in their drug use in the 18 month intervening period. Over half of those originally categorised as " cannabis only " had " progressed " (9 of 17), compared to 26% of all potential progressors (14 of 54). No cannabis users had given up their cannabis use. Overall 17 % of this study group had " reduced " the nature and frequency of their drug use (25% of poly, non-opiate users; 24% of moderate opiate users; and 17% of heavy opiate users). Interestingly, the majority (64%) of respondents were categorised in the same sub-group as at first interview. Patterns of drug use were therefore relatively stable for most respondents.

Opiate users at both time points had experienced significantly more of most of the adverse consequences that were examined. It must be stressed however that the interview schedule did not enable distinction between adverse consequences **ever**

experienced as a result of use of a particular substance, and adverse consequences experienced for the first time in the 18 months between data collection phases. This flaw therefore prevents any examination of the fluctuation in drug users' experience of drug related problems, as has been attempted in several longitudinal studies of alcohol users. For example, a recent Scottish study examined the consistency of alcohol-related problems reported by a random sample of adult males and females over a three year period and concluded that their results, although finding significant levels of consistency , were not sufficient to ,

" undermine the conclusions of others that most problem drinkers move in and out of various categories of severity " (Ritson & Peck, 1989, p.905).

Finally, it was hypothesized that if drug use was a means of coping with problems, then the adverse consequences of drug use might serve to increase drug use. Four opiate users had however given up opiates by the time of second interview, and three had " reduced " their frequency of opiate use, suggesting perhaps alternative reasons for drug use. Only three moderate opiate users had, in support of the hypothesis, increased the frequency with which they used opiates and had " progressed " a category.

The role of experiencing adverse consequences as a predictor of *change* is examined in the next section.

5.3. Changing Patterns of Use

The central aim of this study was, as described in Chapter Three : " To monitor changing patterns of psychoactive substance use amongst regular illicit drug users and to *attempt to explain any change found in terms of social, psychological or personal factors.*" This section sets out to identify the primary factors which

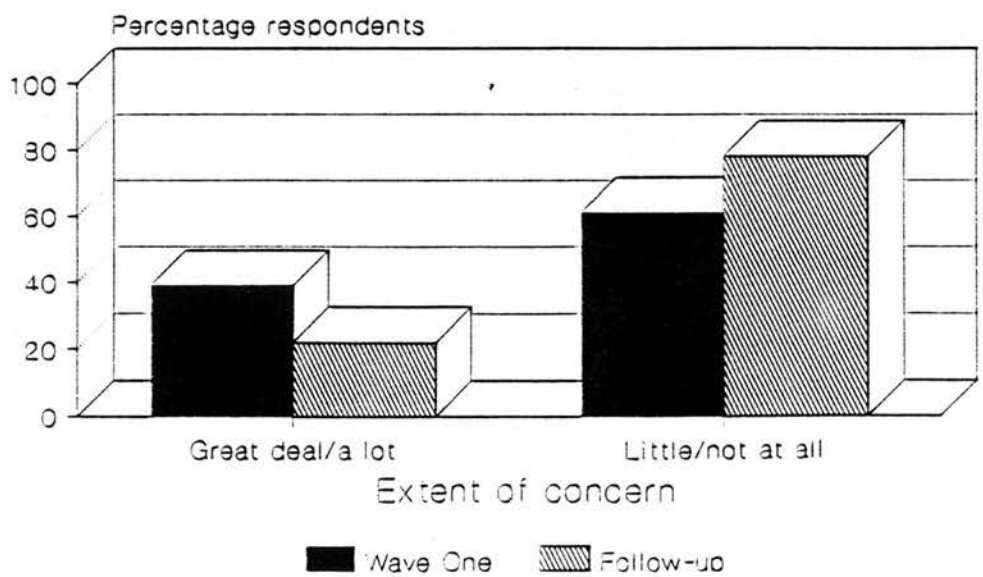
influenced changed behaviour amongst the 72 respondents who took part in both data collection phases.

5.3.1. The impact of HIV / AIDS

A sub-component of the above broad aim was also described in Chapter Three where it was stated that this thesis would "...explore the impact of HIV infection on the drug and sexual behaviours of both injecting and non-injecting drug users , and to examine behaviour change in the light of any increased real or perceived health threats ".

The interview schedule examined the level of concern about HIV infection amongst respondents, since, without concern, no behaviour change is likely (Morrison, 1991b). Figure 5.2 presents data relating to the level of concern about infection expressed at both data collection points. Perhaps surprisingly, this figure shows that the number of respondents who reported worrying a " great deal " or " quite a lot ", about HIV infection had significantly decreased over the intervening 18 months (Sign test, p = .011).

Figure 5.2 :
Concern about HIV infection



The main reason respondents gave for not being concerned, or for being only slightly worried about the risk of becoming infected with HIV, was that they had neither injected drugs nor had several sexual partners, that they were long term monogamous, or that they were selective about their sexual partners. These reasons, however, do not necessarily justify non-concern. For example being monogamous is only safe if there is a guarantee that the other partner is likewise monogamous, and being " selective " raises the question of how to know if honest biographies, or even honest answers to brief questions such as " Have you ever injected drugs or slept with someone who might have ? ", are being obtained. It is also well established that for many young people , particularly women, raising such a sensitive issue with a prospective partner is a daunting prospect (e.g. Bury, 1989; Henderson, 1990; Holland et al., 1990). Furthermore citing " not had several sexual partners " is an inadequate reason for non-concern, unless celibacy is reported.

Forty-nine respondents had never injected at the time of first interview, nine were former injectors and 14 were current injectors. Therefore for almost a third of the study group HIV was a realistic threat if safer injecting techniques had not been employed. Table 5.6 presents information relating to the HIV status of the study group at both data collection points.

Table 5.6 : HIV status

Status	Wave One n	Follow-up n
HIV antibody positive	9 (1)*	11 (5)*
HIV antibody negative	22	22
Not tested	39	38

* The numbers in parenthesis indicate the number of respondents that reported having been diagnosed with 'AIDS' or having developed symptoms thereof.

Two of the eleven HIV positives were former injectors. One respondent had only recently seroconverted. Four of the nine former injectors had not been tested, giving long term monogamy and a lapse of 5 years since last injecting as the reason. Of the 49 reinterviewed non-injectors, fourteen had been tested for HIV antibodies, all had received negative results. Among those not tested, the majority (21) gave non-injection and/or monogamy as their reason, a small number (5) said they were too scared to be tested and that they would rather not know the result. Finally, three respondents assumed negativity because they were blood donors. Two of the fourteen injectors had been tested for the first time between data collection phases; both received positive diagnoses, one in fact had developed " full-blown " AIDS early in 1990.

Behaviour change among injectors

Amongst injectors there was an increasing awareness of the realities of receiving a diagnosis of HIV infection. The injectors in this study, in the main, had known each other for many years, had gone through school together, had grown up in the same housing estates, and had taken different drugs together. At the time of follow-up 5 of this network of injectors were visibly ill, and conversations about HIV and AIDS were laced with fear. However, some endeavoured to take a philosophical view, as illustrated in the following quotations :

" It's very likely that I'll get it (AIDS), don't know when, but eventually, aye. But is no point in worrying about it because it would do your head in. " (19 year old male, diagnosed antibody positive in 1989).

and,

"At first I did worry a lot but now the way I look at it is there's no use in sitting worrying or throwing in the towel.. got to carry on...life's too precious.... it helps to think that way ." (26 year old female, diagnosed antibody positive in 1987)

Respondents were asked whether or not they had initiated any behaviour change as a result of their concern about HIV infection. Table 5.7 presents data relating to the

frequency of needle-sharing reported by the injectors interviewed at both time points.

At both time points the majority of injectors claimed to rarely or never share " works " (injecting equipment) (70 and 93 percent respectively). However, more satisfactory was the increase in the number reporting that they " never " share (from 1 to 8 individuals).

Table 5.7 : Sharing of injecting equipment

Sharing frequency	Wave One n = 13 n	Follow - up n = 14 n
Mostly daily	2	0
Occasionally	2	1
Rarely	8	5
Never	1	8*

* Three of these respondents had also stopped injecting

There were still however occasions where lending or borrowing of equipment took place, with lending or giving used works **to** someone being done more willingly than perhaps borrowing used works for oneself. A selection of quotations illustrate these points :

" I'd lend to another positive, but I'd tell them to keep them... I wouldn't *share* with them."

and

" I would share with a positive coz I'm positive too.... I'd tell them and it's up to them if they wanted to go ahead ."

and more expansively,

" Is no need to share now but if I get asked by someone who's withdrawing and I had a clean set I'd give them them, or I have told them if they were used and that I'd the virus....but it doesn't seem to bother them ..it's just no fair not to tell them. Is no danger I'd lend to someone who's not got it though."

and finally,

" I don't borrow works often now, just if there's something like dike (Diconal) going around.. you need to get in there quick and get it whether have your own set of works or no."

Some respondents commented that some of their acquaintances were not making any changes to their injecting and sharing behaviour, even those currently tested HIV antibody negative. There was some sympathy with those not changing their practices, since most injectors openly admitted that if heroin " of decent quality", or Diconal, returned to the streets, they would share needles and equipment rather than miss out on the chance by going to the nearest needle exchange or pharmacist to obtain their own equipment.

As implied in several of the quotations, disclosing one's HIV status was often seen as the priority in terms of risk reduction, since the decision as to whether to share the injecting equipment was then that of the other person.

Sexual behaviour change

In terms of sexual behaviour change among those injecting drugs, declaring that one was infected was frequently the only concession made. Several quotations are again shown to elaborate on this point :

" My girl is positive as well so we don't bother with condoms but I tell other " possible " birds that I'm positive and that I am going to use a condom...but they say not to, so why bother?"

and

" I might have infected others through sex or needles...but that's their (the females) fault because I've always told them I " might " have the virus, so they know the score."

The young male who provided the last quotation was in fact HIV positive although he did not directly admit to this with prospective sexual partners.

As reported earlier, the majority of respondents (n = 55) reported little or no concern about becoming infected with the HIV virus at the second interview. For those who did not inject this lack of concern was considered justifiable. When asked

whether or not they had made any changes in their sexual behaviour, 21 respondents considered this also unnecessary because they had been in long-term monogamous relationships. Thirty-one respondents, (an increase of 20 individuals since first interview) claimed to have reduced the number of sexual partners they had e.g. " I am more selective " or " I only have one partner now".

Condom use had, however, increased amongst these injectors. At first interview 86% reported never using condoms, whereas at second interview this had fallen to 57%, although even the later figure is disappointing. Females were often given the onus of responsibility. It was seen by males to be up to the female to **insist** on condoms being used. This causes great difficulties for many females who often feel unable to insist that a partner uses a condom because firstly it might suggest that they do not trust their partner and, secondly, they feel that it would be selfish to deny the male pleasure out of concern for their own well-being.

Eight respondents claimed to " always " use condoms (an increase of 7 individuals), seven claimed to " use condoms more often " (an increase of 5 individuals), three reported having stopped having penetrative sex, and one claimed not to have sex " for health reasons ".

Condom use was therefore less common as a means of attempted " risk reduction " than was partner selectivity. As found among injectors, there was however a reduction in the numbers reporting that they never used condoms (from 69 to 59 percent amongst non-injectors, and from 56 to 33 percent amongst ex- injectors).

Fourteen respondents additionally reported that they now asked prospective partners more regularly whether they were HIV positive, although they did acknowledge that the likelihood of an honest answer may have been limited and that others would simply not know their status not having undergone an antibody test.

Summary

This section reported that concern about HIV infection had actually reduced over the 18 months between interviews, with fewer respondents claiming to worry "a great deal" or "quite a lot" about becoming infected. This is not as surprising as it may first appear, in that risk reduction, albeit sometimes questionable, for example, being more "selective" about one's sexual partners, was more frequently reported. Sharing of injecting equipment was less frequent among injectors, with almost 60% reporting that they never shared now, and in fact 3 injectors reported that they no longer injected at all. Condom use had also increased. Therefore, reduced concern about infection can be explained by the fact that many respondents had adopted behaviour change which, in their view reduced their perceptions of "vulnerability" to HIV.

5.3.2. Measuring change

This study hypothesized that changing patterns of drug use may be influenced by respondents' age, sex and social support; or by level of involvement in drug use or cognitions about one's use. The number of adverse consequences experienced up to the time of first interview was to be used as one indication of level of involvement; therefore it was important to examine the correlates of adverse consequences for the 72 respondents who took part in both phases of data collection. This is necessary in order to aid interpretation of the effects of confounding variables in the later analyses.

Two additional variables were computed in order to examine whether length of involvement with drug use (i.e. "career") and level of social support was associated with other measures of drug use.

As described in Chapter Four career was determined by subtracting the age given for first ever cannabis use from the respondents age at first interview. (Solvent use

preceded cannabis for a very small number of respondents. However cannabis was selected as the baseline as the first illegal substance tried).

Table 5.8 shows the mean career length for the four sub-groups. A significant difference between the groups emerged ($F = 3.42$, $df = 3, 68$; $p < 0.05$). Using Scheffe multiple comparison (post hoc) tests, it emerged that Sub-group 3 significantly differed from Sub-group 1 at the five percent level, whereby moderate opiate users had the shortest careers and cannabis users had the longest. (When these data were analysed according to whether respondents had injected or not, the result was not significant $F = 2.97$, $df = 1,69$, NS).

Table 5.8 : Mean career lengths of user sub - groups

	Sub-group 1 n = 17	Sub-group 2 n = 20	Sub-group 3 n = 17	Sub-group 4 n =18
Mean yrs (trimmed)	13.8	11.4	5.9	10.1
Median	15.0	11.5	5.0	9.0
s.d.	6.7	8.5	5.0	5.5
Range	1-23	1-24	1-21	4-22

A measure of " drug experience " was also calculated (based on the number of drugs, including alcohol and tobacco, ever tried). This measure was found to differ significantly between drug-using sub-groups, with those in Sub-groups 1 and 2 more likely to have low experience (between 3 and 7 substances), with opiate users in Sub-groups 3 and 4 significantly more likely to have high experience (more than 8 substances) ($x^2 = 47.3$, $df = 6$; $p = .001$).

As described in detail in Chapter Four, social support was calculated by devising an index which included the following variables : marital status, who live with, family relationship, employment status, mother and fathers' employment status, whether

have someone to discuss problems with and ease of sharing personal problems. Each respondent could achieve a maximum score of eleven.

These factors were selected as possible " protective " factors i.e. ones that may prevent, limit or reduce drug use by acting as a buffer against risk factors for use (e.g. Brook et al., 1989a, 1989b; Newcombe, 1992; Kandel, 1980; Hammersley, Forsyth & Lavelle, 1990b).

When the support scores were calculated, respondents covered the whole range of possible scores with a mean of 6.28 and a median of 6 (s.d. = 2.4). Drug-using sub-groups differed significantly in their levels of support ($F = 4.89$, $df = 3,68$, $p = .004$) with opiate users, particularly those in Sub-group Four having significantly lower levels of social support than non-opiate users (for Sub-group One to Sub-group Four the means were 6.7, 7.5, 5.9 and 4.8 respectively).

Having computed these two new variables, Spearman correlations were carried out using the following variables as calculated after first interview: age; age of first alcohol; alcohol-related adverse consequences; total legitimate income; total illegitimate income; total legitimate expenditure; total illegitimate expenditure; drug income; drug expenditure; drug-related adverse consequences; career length, and social support. These variables were selected as reflective of drug involvement and are to be used in later analyses as potential predictors of change in terms of drug use at the time of follow-up. The correlation matrix is displayed in Table 5.9.

Table 5.9 : Correlations of drug " involvement " variables

	FA	AP	LI	II	LE	IE	DI	DE	DP	C	S
Age	.25*	.10	.55***	-.08	.58***	-.12	.02	-.09	-.28*	.88***	.11
FA		.06	.11	-.15	.05	-.31***	-.02	-.25*	-.11	-.02	-.17
AP			.06	.04	.22	-.10	.27*	-.09	.23	-.06	.09
LI				-.21	.83***	.00	-.23	.00	-.30**	.41***	.15
II					.16	.43***	.50***	.36**	.25*	.01	.16
LE						.10	.03	.09	-.24*	.51***	.06
IE							.06	.96***	.24*	.03	-.23
DI								.07	.37***	.07	-.15
DE									.20	.06	-.25*
DP										-.13	-.34**
C											.14

KEY :

FA - age of first alcohol
AP - alcohol related adverse consequences
LI - total legitimate income
II - total illegitimate income
LE - total legitimate expenditure
IE - total illegitimate expenditure
DI - income from dealing
DE - drug expenditure
DP - drug related consequences
C - career length
S - social support score

* $p < .05$, ** $p < .01$, *** $p < .001$

Several of the above correlations require interpretation. Firstly however, it must be noted that both the reported age of first alcohol, and the length of drug using career is likely to be confounded with age. Longer drug using careers were correlated with higher legitimate incomes and expenditures, this correlation may be biased by the cannabis only users who tended to be older and were more likely to be employed. Older respondents likewise reported higher legitimate incomes and expenditures, and reported experience of fewer drug-related problems in spite of having had longer drug using careers. In other words, younger respondents were more likely to report drug-related problems and lower legitimate incomes and expenses.

The older respondents had been when first trying alcohol , the less illegitimate and drug expenditure reported; in other words having tried alcohol at a younger age was correlated with higher current illegitimate and drug expenditure.

Experiencing greater numbers of alcohol-related problems was significantly related to income from drug dealing, but not with reporting high numbers of drug-related problems. High experience of drug-related problems, and high drug expenditure was correlated with low social support. Experience of a greater number of drug-related problems were also reported by those with lower legitimate incomes and expenditures but higher illegitimate incomes and income from drug dealing.

Further analyses were carried out using categorical variables also potentially predictive of involvement in a drug using lifestyle, for example, sex of respondents, marital status, employment status, drug agency contact, trouble with police, and whether respondents had injected or not. It was hypothesized that being single, or unemployed, male, having injected drugs, having been in trouble with the police and having had contact with a drug agency, would be related to the length of drug using careers, levels of social support and experience of drug or alcohol related adverse consequences or problems.

The only variables to differ significantly between the sexes were the experience of alcohol-related problems ($F = 7.15$, $df = 1, 70$; $p = .009$) and drug-related problems ($F = 6.36$, $df = 1,70$; $p = .014$). In both instances males reported more problems than females.

Employment status affected the number of drug-related problems experienced with the unemployed reporting more problems (mean problem score for the employed was 2.06 , mean problem score for the unemployed was 4.2 : $F = 8.33$, $df = 1, 70$; $p = .005$). Unemployed respondents also reported significantly lower levels of social support (mean social support for the employed was 7.16 and for the unemployed 5.57 : $F = 8.55$, $df = 1, 70$; $p = .005$), and, those unemployed had had significantly shorter drug using careers ($F = 12.43$, $df = 1, 70$; $p = .001$). Those respondents who were employed had higher legitimate income. They also had less illegitimate incomes, higher legitimate expenses and fewer illegitimate expenses, including less spent on drugs.

As one may expect drug injectors were significantly more likely to have been in contact with a drug agency (96% of injectors compared to 27% of non-injectors : $x^2 = 26.4$, $df = 1$; $p < .001$). Injectors were also more likely to be unemployed at the time of interview (75% of injectors compared to 45% of non-injectors : $x^2 = 5.83$, $df = 1$; $p < .05$) and to have been in trouble with the police (100% of injectors compared to 30% of non-injectors : $x^2 = 9.13$, $df = 1$; $p < .01$) . Injectors were also more likely to have high illegitimate expenses and income, to have experienced more drug-related problems, to have longer drug use careers, and to have less social support .

In summary therefore, a greater number of adverse consequences of illicit drug use were experienced by the unemployed, by males, by younger respondents, by those not in a stable relationship, by those with lower legitimate income , a greater income from drug dealing and higher drug expenditure, less legitimate expenditure

and more illegitimate expenditure, by those who had contact with the police, by injectors, and by those respondents with less social support.

In terms of the studies' hypotheses, this would suggest perhaps that young male respondents would be more likely to reduce their drug use if their more chaotic lifestyles (reflected in their being unemployed, having experienced more drug - related problems, being in trouble with the police etc), as measured at first interview, was considered by them to be negative reinforcement for continued use. Drug use may, in contrast, increase if the motivation behind such behaviour approximates escape or avoidance of worries or responsibilities.

In order to test the hypotheses outlined in Chapter Three, it was necessary to examine the direction of the change in drug use reported and to categorise respondents according to whether their drug use increased (either in terms of the legal status of the substances used or in terms of the frequency of their use), decreased, or remained the same. Section 5.2 (Figure 5.1) reported that of the 72 individuals reinterviewed 46 had remained in the same drug-using sub-group as at first interview. These respondents are described as **"Statics"**. Fourteen respondents were categorised into a higher drug-using sub-group than at first interview and are described as **"Progressors".** Finally, twelve respondents were categorised into a lower sub-group than at first interview and are described as **"Reducers"**.

In order to discriminate between those that were static and those that changed their drug use in either an upwards or downwards (in terms of the previously described drug-using sub-groups) direction, Discriminant Function Analyses (DFA) were performed. Prior to this the scores on possible predictor variables were examined between the three "movement" groups.

Table 5.10 presents these data. It can be seen that there were no sex nor age differences between the groups, neither was there a significant difference in the length of drug using careers reported. No significant difference between the groups was found in income from drug dealing at first interview. The number of problems

or adverse consequences of use reported at first interview did differ significantly between Statics and Progressors only, with those respondents whose drug use remained within the same D-level (previously described, i.e. Statics) reporting a higher number of adverse consequences of use.

Table 5.10 : Statics, Progressors and Reducers

	Static n = 46	Progress n = 14	Reduce n = 12	Sig
SEX Male	29	8	8	NS
Female	17	6	4	NS
Mean age (yrs)	26.6	28.6	24.8	NS
Mean career (yrs)	10.6	11.4	9.2	NS
Mean support	5.9	6.8	7.0	NS
Mean dealing income (£'s	7.5	1.6	11.0	NS
Mean problem score	3.8	1.4	3.3	*
Days alcohol	169	205	92	NS
Days tobacco	328	353	335	NS
Days cannabis	183	172	203	NS
Days "pills"	111	15	48	*
Days opiates	123	14	55	NS
Trouble police(%)	80	64	91	NS
Injected (%)	41	36	0	*
Used opiates (%)	46	79	42	NS
Peers use drugs(%)	96	93	92	NS
Family use drugs (%)	59	64	50	NS
Think addicted	50	14	25	*
Want to stop use	67	50	42	NS
Think will continue	85	79	83	NS
Concerned about HIV	67	64	50	NS

* Addicted : $x^2 = 6.93$, df = 2 , p = .03.

* Have injected : $x^2 = 6.797$, df = 2, p = .03

Categorical variables (sex, trouble with police, injected, used opiates, peer and family use, want to stop, think addicted, think will continue use and concern about HIV) were analysed by chi square. Interval data (dealing income, social support score, age , career, problem score) were analysed by ANOVA. Problem score was subjected to t-tests also : between Statics and Progressors ; t = 2.54, df = 58, p = .014: between Progressors and Reducers NS ; between Statics and Reducers NS.

Progressors had experienced fewer adverse consequences related to illicit drug use at first interview. Reducers were significantly more likely to have been in trouble with the police, and least likely to have injected. Progressors were more likely to have used opiates at first interview although this difference did not reach a significant level ($x^2 = 5.2$, df = 2, p = .07).

In terms of drug experience (i.e. whether a low (3-7) moderate (8-11), or high (12-14) number of drugs had ever been tried) no significant difference between Statics, Progressors and Reducers was found ($x^2 = 8.9$, df = 4 ; NS).

A large number of respondents, regardless of their "movement" status, had at least one family member (including parents or step-parents, siblings, aunts, uncles or first cousins) who also used illicit drugs, and reported that more than 25% of their friends also used illicit drugs. Therefore, drug use for these respondents, was "normal" behaviour amongst a significant proportion of "important" others.

Discriminant analysis provides a means of classifying cases into one or more group (the dependent variable) on the basis of the independent variables. Therefore it allows identification of variables that are important in distinguishing among groups and makes possible the prediction of group membership for new cases who have an undetermined group membership. Therefore if successful, it would be possible a) to distinguish between drug users whose drug use remained the same and those for whom it progressed or reduced and b) to make predictions on the basis of significant discriminating variables, (for example, levels of social support), as to which new drug users may be at risk of progression.

Procedure DSCRIMINANT (SPSS Advanced Statistics) is similar to Multiple Regression analyses in that independent variables (IV's) can be entered into an equation in one of three manners; direct entry, stepwise, and hierarchical. For the purposes of the analyses described here procedure STEPWISE was employed since there was no theoretical reason to establish a priority order among the IV's to be entered (which would require a hierarchical analysis). The STEPWISE procedure

enables variables to be entered and/or removed on the basis of their meeting the appropriate statistical criteria. There are several possible criterion for entry or removal. The analyses here employed the minimisation of Wilks lambda method which means that variables with the largest multivariate F are entered.

It is important not to enter variables that are highly correlated with each other, or, if variables do emerge as significantly correlated, it is necessary to be cautious when interpreting the discriminant function coefficients and their signs, obtained for each independent variable.

The results of these analyses are presented according to the hypotheses set out at the beginning of this thesis (Chapter 3).

Three Discriminant Function Analyses (DFA's) were performed where the 3-group dependent variable was Static versus Progress versus Reduce. The predictor or independent variables (IV) entered into each analysis depended on the hypothesis being tested. The results of these analyses reveal a maximum of 2 discriminant functions (i.e. degrees of freedom for the groups is 3-1=2), the first function suggests the best predictors for distinguishing between groups and the second function is orthogonal to the first and discriminates the groups along another dimension.

5.3.3. Age, sex , social support and changing patterns of drug use

The hypothesis made is that changing patterns of drug use may be simply explained by age (younger people may progress and others may " mature out " of use with age), social support (those with less social support may be more likely to progress e.g. Newcombe & Bentler, 1986b; Hammersley, Forsyth & Lavelle, 1990b) and sex (males greatly outnumber females in most studies of illicit drug users and since general population studies have shown that males are more likely to use illicit drugs, it may be that males more often progress).

Table 5.11 presents the mean ages and the mean levels of support reported among the three groups which provided the dependent variable for this analysis. (The sex distribution among groups was shown in Table 5.10).

Table 5.11 : Age and social support among groups

Mean (sd)	Statics n=46	Progressors n=14	Reducers n=12
Age	26.6 (7.7)	28.6 (6.5)	24.8 (7.6)
Social Support (max 11)	5.9 (2.5)	6.8 (2.2)	7.0 (2.1)

Neither of these independent variable means differed significantly across groups : F = 0.83, df = 2,69, p = 0.44 and F = 1.34, df = 2,69, p = 0.27 respectively.

A Stepwise DFA using these three independent variables was performed. No cases were dropped from the analysis due to missing data, neither were there any outliers to be eliminated. Evaluation of the variance-covariance matrices (using subcommand PLOT) showed homogeneity of variance, thus no threat to the validity of the multivariate analysis was found.

One discriminant function was calculated, with a x^2 = 2.63, df = 2; NS. This suggests that there is not a strong association between the groups and the predictor variables.

There is no *significant* separation of the 3 groups along this function, based on the group centroids i.e. the mean loading on the function of each group (Statics = -0.14, Progressors = 0.21, Reducers = 0.30). The Static group however were more distant from the other two groups. Table 5.12 presents the loading matrix of correlations between predictor variables and the discriminant function and suggests that the best predictor for distinguishing between Statics and the Reducers and Progressors, was level of social support. Looking back at Table

5.11, Statics had lower levels of social support, although this difference did not reach significance.

That the discriminating function was not significant is reflected in the percentages of cases correctly and erroneously classified. Fifty-nine percent of Statics were correctly classified, but 41% were classified as Reducers. No Progressors were correctly classified, with 43% being classified as Statics and 57% as Reducers. Although 67% of Reducers were classified as such, a third were wrongly classified as Statics.

Table 5.12 : Results of 3-group DFA with age, sex and social support

Predictor Variables	Correlations of IV's with Discriminant Function *	Univariate F (2,69)	Pooled within group (IV) correlation SEX SUPPORT
AGE	.13	.83	.12 .13
SEX	.10	.13	.10
SUPPORT	1.00	1.34	
Canonical R	0.19		
Eigenvalue	0.04		

* Loadings (correlations) of < .5 are not interpreted further.

Summary

Sex, age or low levels of social support did not discriminate between drug users whose drug use remained static over an eighteen month period from those whose use either progressed or reduced.

5.3.4. Level of involvement and changing patterns of drug use

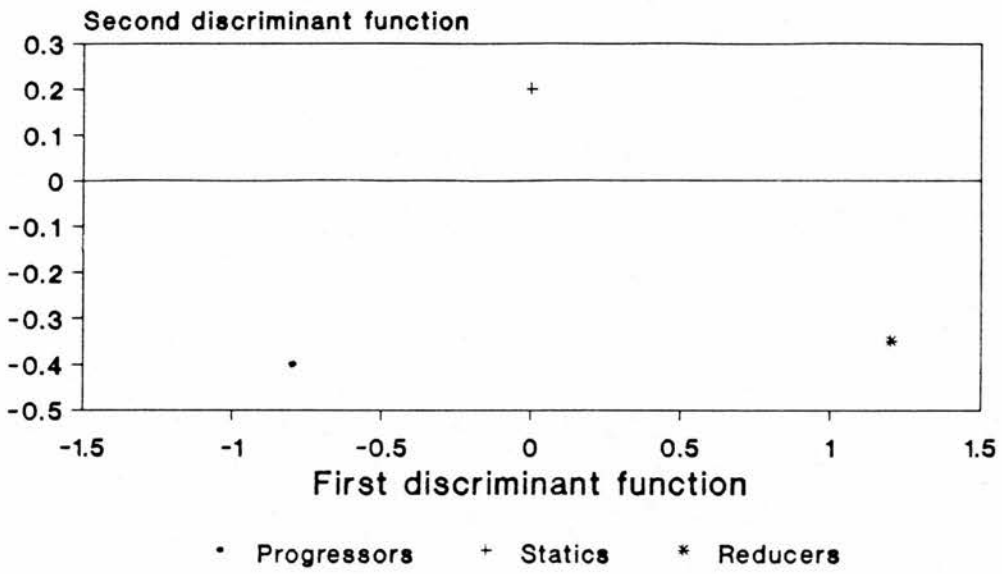
The hypothesis to be tested here was that those illicit drug users who were most *involved* in illicit drug using lifestyles at first interview would be most likely to change their behaviour by the time of follow-up. The direction of change could go either way depending on one's response to involvement (see 5.3.6.). Involvement could be seen as " positively reinforcing " one's drug use, for example, experiencing adverse consequences of use could increase the desire to "escape" problems by further use. Or, if the " addictive " model of opiate use is correct, opiate use should be self-sustaining thus use could again increase. Alternatively, involvement in drug use, such as experiencing problems of use, could be " negatively reinforcing " for those who view their use as " fun ", or " social " behaviour; these individuals may therefore reduce their use.

The independent variables used in this set of analyses were selected as potential " risk " factors for change (e.g. Newcombe, Mahaddian & Bentler, 1986 ; Brook et al, 1989a; Newcombe & Felix-Ortiz, 1993) and were as follows : length of drug using career, income from drug dealing, problem score (i.e. total number of adverse consequences of use reported), having been in trouble with the police, having injected drugs at least once, using opiates at the time of first interview, having one or more family member involved in illicit drug use, and having friends of whom greater than 25% also use illicit drugs (see Table 5.10).

When a 3-group DFA was performed, two discriminant functions were selected, with the first function accounting for 82% of the variance. With neither function removed $x^2 = 25.4$, df = 10, p = 0.005. When the first function was removed $x^2 = 5.04$, df = 4, p = 0.28. Therefore the second function is not sufficient in the absence of the first to discriminate between the groups. As shown in Figure 5.3 , the first discriminant function maximally separates Reducers from the other two groups and the second function discriminates Statics from Progressors and Reducers

(this figure displays the group centroids for the 3 groups on the two discriminant functions).

Figure 5.3 :
Plots of group centroids



The loading matrix of correlations between predictors and discriminant functions, as shown in Table 5.13, suggests that the best predictor for distinguishing between Reducers and the other 2 groups (the first function) is whether or not a person has been in trouble with the police; (more Reducers (91%) had been in trouble with the police by the time of first interview than Statics (80%) and Progressors (64%)). Loadings of less than .30 are not interpreted.

On the second discriminant function several predictors separated Statics from Progressors and Reducers; income from dealing (Statics had a higher mean weekly

income (£7.5), than Progressors (£1.6) and lower than Reducers (£11.0)); opiate use (Statics were less likely to have used opiates than Progressors (46% as compared to 79%)), having injected (Statics were more likely to have injected than Progressors or Reducers, 41% compared to 36% and 0%) and had the highest problem score (mean of 3.8 compared to 3.3 for Reducers and 1.4 for Progressors). Again loadings of less than .30 are not interpreted. However this second function was not a significant discriminator in its own right (see chi square results presented earlier).

Table 5.13 : Results of 3-group DFA with involvement

Indep Vars (IV)	Correl of IV with DF	Univariate F (2,68)		Pooled within-gp correlations						
		F1	F2	I	O	P	F	Po	D	Pr
Career	-.16*	.06	0.32	-.18	-.27	-.03	.20	.23	.08	-.20
Inject	.40	-.80*	3.73		-.51	.13	-.22	.42	-.21	-.43
Opiate	.33	.63*	2.38			.04	.08	-.37	.24	.46
Peer	.08*	-.06	0.37				-.02	.13	.04	-.04
Family	-.06	.12*	0.12					-.12	-.07	-.00
Police	-.33*	-.29	1.56						-.11	-.34
Deal	.18	.37*	0.47							.38
Problem	.34	.84*	3.38							

Canonical correlation F1 0.5185

Canonical correlation F2 0.2730

Eigenvalue F1 0.3677

Eigenvalue F2 0.0806

KEY : I - Inject O - Use opiates P - Peer use of illicit drugs
F - Family use of illicit drugs Po - Been in trouble with police
D - Income from drug dealing Pr - Drug-related problem score

This analysis resulted in the correct classification of 38% Statics with a third being wrongly classified as Progressors and 29% as Reducers. Involvement variables were therefore not discriminating for drug users remaining static. A far better classification rate for Progressors emerged with 78.6% being correctly classified, 7% being classified as Statics and 14% as Reducers. Involvement variables did discriminate Progressors. Finally, 72.7% of Reducers were correctly classified, with 18% wrongly being classed as Progressors and 9% as Statics. Involvement variables therefore discriminate Reducers. However the overall conclusion is that variables relating to involvement in a drug using lifestyle were more predictive of *movement*, rather than *direction* of movement, i.e progression or reduction.

5.3.5. Cognitions and changing patterns of drug use

The hypothesis to be tested is that cognitions about one's own drug use at first interview may influence whether or not drug use changes over an 18 month period. The variables entered into the next analyses were: desire to stop (yes/no), think will continue (yes/no), perception of self as addicted (yes/no) and concerned about HIV infection (yes/no). The first two variables measure *intention* to change, the latter two were included as potential predictors of change, in that one or both may be perceived by respondents as undesireable cognitions to hold.

One discriminant function was calculated with a x^2 of 6.98 (df = 2), p = 0.03, which suggests a strong association between the groups and the predictor variables. In terms of the group means or centroids, the loadings of the three groups on this function separated Statics from Progressors and Reducers (loadings of 0.23, -0.52 and -0.29 respectively)

Table 5.14 presents the loading matrix for the predictor variables on this discriminant function .

Table 5.14 : Results of 3-group DFA with cognitions

Indep Vars(IV)	Correlation of IV's with DF	Univar F (2,69)	Pooled within-gp correlations WS	C	CO
ADDICTED	1.00	3.67*	.2	-.13	-.08
WANTSTOP (WS	0.2	1.65		.08	.13
CONTINUE (C)	-0.13	0.14			-.03
CONCERNED (CO)	-0.08	0.61			
Canonical R	0.31				
Eigenvalue	0.11				

KEY : ADDICTED : perception of self as addicted to one or more drug
WANTSTOP / WS : expressed desire to stop using one or more drug
CONTINUE / C : think will continue to use one or more drug
CONCERNED / CO : expressed concern about HIV infection

The loading matrix presented above of correlations between predictor variables and the discriminant function suggests that the best predictor for distinguishing Statics from the other two groups is whether or not respondents consider themselves to be addicted (Statics were significantly more likely to feel addicted (50%) than either Progressors (14%) or Reducers (25%)).

An overall correct classification rate based on the four independent variables, of 48.6% was obtained. Fifty percent of Statics were correctly classified, but 50% were wrongly classified as Progressors. In contrast, 86% of Progressors were correctly classified and only 14% wrongly classified as Statics. All of the Reducers were wrongly classified on the basis of the cognition variables, 25% were classed as Static, 75% as Progressors. These findings suggested initially that feelings of being addicted discriminated Statics from the other two groups. However the high percentage of misclassifications show that cognitions, amongst this study group at

least, were not powerful predictors of changing patterns of drug use over an eighteen month period.

5.3.6. Reasons given for change : qualitative material

Fourteen respondents had " progressed " by the time of the second interview, in terms of either the nature of their drug use (i.e. cannabis only or poly-non-opiate use to opiate use, n = 11) or in terms of the frequency of their use of opiates (moderate to high opiate use n = 3). Several of these respondents volunteered some explanation of why they had changed their drug use. Some explanations fell within classic " addiction " theory, for example one young male respondent whose opiate use had gone from sporadic to almost daily told how ;

" Once you start on these things (DF118's) you're hooked, I get crazy if I don't get them every day now, but it's been a lot easier since got a script (prescription), coz I don't need to go out beggin' others for them or worse still, doing without."

Another young female cannabis only user described how she had started to use tranquillisers as a way of improving her mood in the absence of her usual drug, cannabis ;

" I couldnae get hold of any hash one weekend and I was in a rage wi' me Dad who had been on at me all weekend so I needed to get out of the house or he'd have done my heid in. I went to .....'s (girlfriends) and she had no hash but got some Vallies from her Mums bottle and we were so pissed off we thought they'd be good mixed with some vodka. You should have seen us man, we were raj, (crazy), dancing aroun' in the streets an' that, was pure magic what they done. She went and got a script for them by telling the doctor she couldnae sleep for fear of her Da, so we don't buy them anymore. She gies me half mosts of the time.... they're pretty cool when taken after a few joints.."

As discussed earlier in this thesis, pills, of one form or another were becoming increasingly available on the black market, and several of the respondents who had at first interview been involved in using cannabis and selling it in small quantities to friends, had moved on to pills, mainly Valium, Temazepam and Upjohns, but also for some, opiate based tablets such as DF118's and Temgesics were available.

Reasons for first trying new substances have been discussed in Chapters Three and Four.

Five respondents moved to using cannabis only from poly, non-opiate use, and reasons here tended to centre around negative experiences of use, as illustrated in the following two quotations ;

" I stopped taking tranquillisers (temazepam mainly) because they were just freaking me out and I kept falling asleep and couldn't remember what had happened afterwards"

and,

" I stopped sniffing glue because I thought I'd seen my lungs in the bag when I was "buzzed". It put me right off _ I threw the bag away and said "No danger!" It freaked me right out."

Four respondents had gone from being moderate opiate users to not using opiates although they still used a variety of substances. The opiates that they had not used in the previous twelve months were Temgesic or DF118's, preferring instead to take Valium or Temazepam. No specific reasons were given, although one implied that he was weaning himself off drugs altogether;

" I have stopped or will have soon, you can't stop just like that can you?"

As suggested earlier in this thesis, there existed in the mind of many drug users in this study a hierarchy of drugs, use of some is seen as indicative of "junkie" status whilst others such as cannabis are often not thought of as "real drug use". Drugs that were commonly injected, such as Temgesic, would often be given up if a halt to injecting occurred, even if only a temporary halt. One of the respondents that had progressed in terms of the frequency with which he used opiates supports this when he described how his use had changed;

" I'm no addicted now coz I just take my methadone so don't jag any more - no-one can say that makes me a junkie, can they?"

It is interesting that this young respondent (who died about 4 months later having re-started multiple use and injecting after a one month "break") feels that only using methadone removes the addict identity from him, as does not injecting,

furthermore he is apparently concerned about the stigma attached to the label " junkie ".

In summary, the reasons given for change, only a few of which are cited here, are as varied as the reasons given for initiation. Drug use may increase as a result of availability, sensation-seeking, self perception change (i.e. seeing oneself as an addict), or may decrease as a result of accumulated negative events attributed to drug use, or as a way of re evaluating ones self image. A mixture of involvement in drug use and cognitions about ones use appear to be significant, at least in the user's eyes.

The power of a drug habit is summed up in this last statement made to the author on the day a young 20 year old died of an overdose, reportedly of a combination of methadone, cyclizine and diconal;

" these bloody drugs, too many folk are dying. Aye, maybe we'll all get a fright and take it easy, but after a while, a couple of days, the drugs win out and we'll be do-nuts (stoned) again. There'll even be folk do-nuts at his funeral."

5.3.7. Summary and Discussion

This chapter has described how this study achieved a follow-up rate of 63 percent, which was quite satisfactory given the nature of the population. Those not traced for reinterview appeared not to differ significantly from those who did go on to participate in the second wave of data collection.

The majority of regular illicit drug users reinterviewed were found to have remained in the same drug-using sub-group as at first interview. A quarter of those who **could** progress (i.e. excludes those who were categorise in the highest sub-group at initial interview), however, were found to have " progressed ". Seventeen percent had " reduced ", in terms of the nature or frequency of their substance use. No respondent was found to have given up the use of illicit drugs altogether. Multiple substance use continued to be the norm, with an increase in the frequency of prescribed drug

use being found amongst females, and an increase in both the number using, and the frequency of use of Methadone, among male respondents. These changes possibly reflected prescribing policies at the time of data collection.

Opiate users had experienced a significantly greater number of adverse consequences which they themselves attributed to their use of illicit drugs. Both opiate use and the number of adverse consequences experienced were classed by the author as indicative of involvement in drug using lifestyles. Other variables identified as such were selected on the basis of findings of other studies of drug users and behaviour change. These included level of social support (high social support thought to be a protective factor in the development of " deviant " behaviours e.g. Newcombe & Felix-Ortiz, 1992); length of drug using career, and income and expenditure measures. Correlation analyses revealed that career length related to higher legitimate expenditures and incomes, and high experience of adverse consequences of drug use was associated with low social support and high expenditure on drugs. Several other relationships were found which suggested to the author that change may be more likely among younger respondents, or those with greater experience of adverse consequences of drug use. When involvement variables were compared across the three movement groups (i.e. Statics, Progressors, Reducers) it emerged that Progressors had experienced fewest adverse consequences of use by the time of the first interview, whereas those whose use remained static had experienced significantly more.

Discriminant analysis indicated that involvement variables successfully discriminated between those that had changed their drug use (i.e. progressed or reduced) and those that did not (i.e. Statics), but did not discriminate the direction of movement. It was hypothesized that cognitions about ones' use, such as expressing the desire to stop, or perceiving self as addicted, at first interview, may prove discriminating. However, this analysis failed to provide any further

explanation of change. It may be that eighteen months is insufficiently long to both identify and explain change.

Finally, this chapter examined the impact of the spread of HIV infection upon drug users and the author was initially confused to find that concern about infection had, in fact, reduced between the two interview periods. However, this was clarified when the data revealed that an increase in behaviour change (both drug-related and in terms of sexual behaviour) had taken place and the author suggested that the reduced concern was possibly a function of a decrease in perceived personal vulnerability to infection.

CHAPTER SIX : SUMMARY AND CONCLUSIONS

6.1. Heterogeneity of Drug Use and Drug Users

Like many other studies this investigation has shown illicit drug use to be a diverse behaviour carried out by people of different ages, educational abilities and social backgrounds.

6.1.1. Drug use initiation

The circumstances of initiating illicit drug use depended upon the substance concerned: cannabis use was more often initiated in the company of a family member than was opiate use. Cannabis was nearly always provided on the first occasion by a friend whereas opiates were almost as likely to have come from a dealer. There were similarities, however, in the reasons why cannabis and opiates were tried the first time, with "curiosity" being by far the most common motivating factor. Few individuals had tried a substance that they had never heard talked about by someone who had already used it. It was not particularly surprising that cannabis was more likely to have come from a friend on first use, than were the opiates since those about to try cannabis for the first time were unlikely to have contacts with drug dealers. Those about to try their first opiate on the other hand, were likely to have been using other types of illicit drug for several years and had thus built up a network of supply contacts, or, at the very least, one reliable source. Knowing other people who have used illicit substances and who appear not to have been "harmed" by their use were crucial influences in that this would appear to increase others' curiosity to try a substance for themselves. Drug use is primarily a social behaviour as was supported in the finding that very few users consumed either cannabis or opiates on their own.

This study can not comment on the characteristics of respondents prior to their first using an illicit substance , since all respondents were using at least one illicit drug on recruitment to the study.

6.1.2. Adverse consequences of use and societal hypocrisy

This study focussed solely on users of illicit drugs, and in discussing the diversity of such users and their experiences (both positive and negative) the use of legal mind-altering drugs, such as alcohol and tobacco have deliberately received little attention. However it was apparent that for some respondents the regular intake of illicit substances had caused them to experience few adverse consequences of use in their lifestyles or in their relationships, whereas virtually all regular or heavy users of alcohol had experienced at least one "problem" attributed to their drinking. This was particularly the case for those who confined their illicit drug use to that of cannabis; these respondents attributed few adverse consequences to their drug use but attributed a moderate number of adverse consequences to their alcohol use . Cannabis only users were also found to have consumed alcohol more often than opiate users or users of multiple non-opiates. A similar finding was made by another Scottish study in which cannabis users reported a greater number of days drinking in the previous year than did moderate and heavy opiate users and poly-drug users, although the difference did not achieve significance (Hammersley et al., 1988, p. 85).

Many of the problems attributed to the use of drugs such as the opiates, could be attributed in part to their illegal status and the social stigma attached to their use, rather than to any direct effect of the drug itself upon behaviour. For example, the author was informed of disagreements with family members which had stemmed from the parent not accepting that their son or daughter was taking large quantities of opiate based painkillers, because in their view such drugs were extremely dangerous, likely to lead to addiction, and likely to cause profound behavioural

change. Several opiate users commented that no-one would be concerned if they had regularly been getting drunk, yet they believed that drinking would probably cause more damage to their health and cause them to become violent or aggressive. In fact several respondents commented on the fact that one or both of their parents drank heavily, or used tranquillisers on a daily basis, and thought there was nothing "wrong" with what they did, but when confronted with the use of cannabis or other illicit drugs by the respondent they lost their tempers and showed little understanding. The discrepancy between the ways others viewed illegal substances and alcohol were emphasised by many respondents. The lack of social acceptability of the drugs used by respondents contributed to many becoming resentful of those in positions of authority over them, such as parents or even drug project leaders. Drug users frequently stated that they believed others were hypocrites to accept, and often use, legalised forms of chemical escape, mood enhancement, socialisation or pleasure seeking, but almost totally reject other drugs on the basis of their illegality and their "bad" reputations. Several studies have suggested that many individuals who give up the regular intake of illegal drugs, particularly heroin, develop substitute dependencies such as becoming heavier drinkers than previously, and some go on to experience alcohol-related problems (e.g. Chambers 1987, p245). One "crutch" is replaced by another, yet one is acceptable (within limits) and the other is not.

The use of mind-altering substances received on prescription was common amongst the opiate users in this study. Behavioural disturbances, particularly involvement in violence, and taking excessive risks of being caught whilst shop-lifting, were frequently attributed to the intake (often by injection) of Valium, described by some as "jail-bait". Reports of the effects of the illicit use of minor tranquillisers would offer support for this descriptive finding (e.g. Gossop, 1987).

This study supported the conclusion that regular illicit drug use was not the inevitable precursor of adverse consequences or problems, even for some who had

used drugs for considerable lengths of time. Furthermore, the findings revealed that, in spite of experiencing some negative consequences of their drug use, many users did not see the necessity of seeking advice or support at one or other of the local drugs services. Few non-opiate users, although reporting adverse experiences, had drug agency contact. This could be because drug services in Edinburgh were, at this time, primarily set up to respond to the needs of opiate users and drug injectors, and as such may have appeared to have little to offer non-opiate users and non-injectors.

6.2. Factors Influencing Change

Those interested in isolating specific characteristics and traits of current drug users for the purpose of identifying individuals "at-risk" of drug use in the future have had a difficult task. Huge variation exists, firstly, in the range of mind-altering substances available and, secondly, in the kinds of people that seek out mind-altering experiences. This study did not have such an ambitious aim, rather it set out to examine whether, within a group of individuals *already* using illicit drugs, there were any factors, or cluster of factors, that made *change* predictable. The study group was assigned on the basis of type and frequency of drug use into four smaller sub-groups to enable examination of the transitions expected . For example, the "stepping-stone" model of drug use led to the expectation of a transition from cannabis use to the use of other substances; and the "dependence" notion applied to opiate use led to the expectation of a transition from moderate use of opiates to a higher frequency of use. "Maturing out" explanations of behaviour change led to the expectation that age may be a predictor of reduction in drug use. Change could therefore occur in one of two directions. In this study increased use was defined as movement from the sole use of cannabis to the use of other non-opiates, or opiates; from the use of non-opiates other than cannabis, to opiate use; or for someone changing from low frequency opiate use to high frequency use. Reduced use

would therefore include respondents who; reduced the frequency of their opiate consumption, or gave up opiate use; switched to cannabis only use from poly, non-opiate use; or gave up the use of illicit drugs altogether.

6.2.1. Change according to the substance(s) used

It is notable that in this study group, when reinterviewed approximately 18 months after the initial interview, the majority were classed as neither "Progressors" nor "Reducers", but as "Statics". " Escalation " type explanations of drug use, such as that of Kandel (1980) have described how the existence of "stages" in drug use careers (i.e. commonly alcohol or tobacco initiation preceding cannabis use which in turn precedes the use of other illicit drugs) does not inevitably cause *all* persons who try an illicit drug to "progress" through these stages. It is widely accepted that escalation to drug dependence is **not** the norm (with perhaps the exception of tobacco use). Therefore it was not unexpected that only 14 respondents interviewed during the second phase of this study were found to have " progressed ". When progression was examined according to drug use at first interview it emerged that a far greater proportion of cannabis users i.e. nine individuals, (53%) progressed, compared to only two (10%) of the poly, non-opiate users and three (18%) of the moderate opiate users (As a result of this study's use of drug-using sub-groups, those in the highest sub-group, Sub-group 4 could **not** progress. It must however be pointed out that increased use by some individuals within this sub-group did occur). Cannabis appeared therefore to be a "gateway" drug to the use of multiple substances, more often than poly-use was a gateway to opiate use. Those who had been using substances in addition to cannabis, but not opiates (i.e. Sub-group 2), at first interview, were, in fact, more likely to have reduced their use than to have increased it. A quarter of this group (five individuals) were using cannabis only by the second interview. Two were females who had become pregnant during the intervening period and decided to stop everything

except "very occasional" cannabis; another two had become disillusioned with the effects of amphetamines, and the fifth had had negative experiences of tranquilliser use.

If the notion of the dependence-producing nature of opiates was to be supported in this study, then one may have expected that those using opiates at the time of either interview would be using them on an almost daily basis. The results, however, did not support this, with many using opiates only sporadically, or regularly but over short periods of time. This is a common finding in studies of opiate users, whether the key substance examined is heroin (e.g. Johnson, 1984; Pearson, 1987) or other opiates such as Temgesic (buprenorphine) (e.g. Hammersley, Lavelle & Forsyth, 1992). Furthermore one may have expected more than three of the 17 (18 %) moderate opiate users to have progressed to more frequent opiate use. In fact, slightly more (four individuals, 24 %) had **reduced** their use, which indicated that using opiates moderately frequently did not inevitably lead to increased use. Escalation did not occur for all opiate users as a direct function of the chemical properties of these substances. For those whose use did increase, this appeared to be due to other factors such as the individuals' personal characteristics, cognitions or beliefs, or to external influences. (It must be remembered, however, that those writing about the addictive potential of opiates have tended to refer to specific opiates such as heroin or morphine, and not to the more recently popularised opiates such as Diconal, DF118's or Temgesic. Few respondents in this study had used heroin on a regular basis due to reduced availability of this drug during the span of this study.

Pearson (1987b) points out that;

" Heroin is not instantly addictive, and it is necessary to work quite hard at becoming a heroin addict: that is to say , the drug will need to have been taken regularly on a daily basis for some length of time before the onset of dependence. Different time-scales are undoubtedly involved for different individuals in making the transition from early experimentation and occasional use to habitual use..." (p89).

Translating the above conclusions to the current study where heroin was rarely available or used, it may be that the opiate users in this study did not all progress by the time of follow-up because many had not been using opiates sufficiently regularly at first interview or for sufficiently long periods of time. It is possible that if this study had been able to follow respondents over a longer time period, the percentages of respondents showing progressive or increased use would have been quite different. (The same can also be said for the percentage reducing their use.) Furthermore this study, by its very design, examined a relatively small number of drug users, who may or may not be representative of drug users in general. A larger, representative, study group may have exhibited different patterns of change.

6.2.2. Change as a result of level of involvement

Discriminant Function analyses confirmed that selected factors indicative of involvement were not necessarily predictive of progression. If opiate use in itself was addiction forming, and 49 percent of those followed up at second interview had used opiates, why then did only eighteen percent of moderate opiate users progress to a higher level of use? Furthermore, when the experience of adverse consequences of use at first interview was entered into the analysis as another indicator of "involvement", the hypothesis that change would result was not supported. Firstly, if drugs were used as a means of escaping problems, then, it was suggested, experiencing problems as a result of use by the time of first interview, may in fact lead to increased use by second interview. However, respondents who had "progressed" by second interview had experienced significantly **fewer** problems of use at first interview. In other words, those who had progressed may have done so because they had not received sufficient negative reinforcement for their use at first interview to have "put them off" drug use.

Secondly, if drugs were used as a means of enjoyment and relaxation, it was hypothesized that experiencing adverse consequences of use by the first interview

would likely lead to reduced use by the second interview. However, this hypothesis was not supported since Reducers had experienced almost as many adverse consequences of use as had those users who remained Static.

Therefore those that had experienced more adverse consequences of illicit drug use at first interview, were in fact **least** likely to change their use. This is contrary to the conclusions of a review of spontaneous remission from substance use carried out by Stall & Biernacki (1984). These authors concluded that the cessation of illegal drug use may come about when drug users face ;

"health problems, social sanctions, problems with significant others, and financial difficulties. The necessity of coping with such problems leads to the decision to stop misusing the substances in question, and thus to the building of "psychic change" or "motivation"." (p.17).

The issues of deciding to stop using drugs and of motivation are discussed in the next section which relates to cognitions and their role in the process of change.

Finally, other studies have shown that the best predictor of increased future use is often the extent of current use (e.g. Single et al, 1974; Mills & Noyes, 1984; Elliott, Huizinga & Ageton, 1985). In support of these studies a study of young Scottish drug users found that the frequency of cannabis use was predictive of initiation to Temazepam and Temgesic (buprenorphine) within 12 months (Hammersley, Lavelle & Forsyth, 1992). This current study however, found no significant difference in the frequency of use of alcohol, tobacco or cannabis in the 12 months prior to first interview by those who progressed, reduced or remained static (although Progressors had used alcohol and tobacco more often (mean days) the difference was not significant). Statics had a significantly higher mean frequency of use of both tranquillisers and opiates. Progression amongst this study group was seen to be related to low frequency of use of tranquillisers and opiates rather than the reverse as suggested in these other studies.

Finally, the level of drug experience in terms of the number of drugs ever tried, has been related to "heavier" use, such as that of opiates (e.g. Hammersley et al.,

1988). This study revealed a highly significant difference in the number of drugs ever tried by opiate users compared to the non-opiate using sub-groups, whereby opiate users had had greater drug experience. When drug experience was compared between Statics, Progressors and Reducers, no significant differences were found. Therefore the suggestion that level of drug experience would predict progression was not substantiated.

6.2.3. Change as a result of individual cognitions

Many of the myths surrounding the use of opiates, had made an impact on the lives of those using these substances. The myths of immediate "addiction" and resulting criminality had instilled fear into family and friends. For the user the myth of immediate addiction was often seen to have created the firm belief that one **was** an addict, a "junkie", and as such having no personal control over one's drug use.

When perceptions of being addicted were analysed according to whether drug users had progressed, reduced or remained static, it was hypothesized that "feeling addicted" at first interview would predict no downwards change, due to the person perceiving no control over their use. This was partially supported because the Statics had more often reported feeling addicted at first interview. Progressors were the least likely to have reported feeling addicted.

In terms of cognitions or intentions for future use, it was hypothesized that "wanting" to stop using drugs would be predictive of reduced use by the time of follow-up. Reducers, however, were the least likely to report wanting to stop use when interviewed initially. This does not support models of behaviour described briefly in Chapter Two whereby the best predictor of behaviour change is purportedly having the intention to change. This is because "wanting" to do something, is not sufficient motivation to actually **doing**. Prochaska and colleagues would describe these respondents as being in the " contemplation" stage, where they could remain for long periods of time before ever making a commitment to action

(e.g. Prochaska & DiClemente, 1983; Prochaska et al, 1988). A lot of factors intervene between the wish to change, intending to change, preparing to change, and actually changing. A more recent model of behaviour change, the Health Action Process Approach (Schwarzer, 1992) was reviewed in an attempt to better explain these findings. Schwarzer attempts to bring together strands of existing theories that have offered an explanation for causal mechanisms which shape the intention either to *change* risk behaviours, or to *maintain* health behaviours. Models tended to examine separately the phenomenon of intention to change, such as the Theory of Reasoned Action (Fishbein & Ajzen, 1975, Fishbein, 1982) or the Health Belief Model (Becker, 1974; Janz & Becker, 1984) from that of maintaining change (e.g. Marlatt & Gordon, 1985; Prochaska & DiClemente, 1983; Prochaska et al., 1988; DiClemente, Rossi & Prochaska, 1990).

Schwarzer points to the importance of outcome expectancies, for example, the consequences of change an individual might expect if he/she stops smoking, or using opiates; for example improved health, reduced contact with the police, and reduced likelihood of HIV infection. He also stresses the importance of self-efficacy expectancies which are the beliefs that one has the ability to change and to cope with the change despite the possible barriers to it (e.g. Bandura, 1977; Marlatt & Gordon, 1985). Both outcome and self-efficacy expectancies are important not only in the translation of intention to change into action, but in the maintenance of change once it has been achieved. A review of how Schwarzer came to develop his model follows (this model of change was not available at the outset of writing this thesis).

Models of change based on the Theory of Reasoned Action (TRA) divide intentions into two components; attitudes towards the behaviour under consideration, and subjective norms (i.e others expectations). The TRA does not, however, consider whether people consider themselves **able** to change, in other words efficacy is not considered. Ajzen (1988) extended the TRA beyond a model of intention to include

an additional predictor variable which he calls Perceived Behavioral Control. This Theory of Planned Behavior therefore contains an element similar to that of self-efficacy, in that without perceived behavioural control over a behaviour this model states that an intention to change the behaviour is unlikely. There are other interesting aspects to this model which are not discussed here.

The Health Belief Model (HBM) has stressed the role of perceived threat in the form of perceived susceptibility to negative outcomes of the behaviour and the perceived severity of these outcomes. The perceived threat then causes the individual to weigh up the perceived benefits of and the perceived barriers to change. In other words change is unlikely if there is no perceived threat nor any perceived benefits to change. The HBM does not account adequately for the role of intention to change or for self-efficacy, and it further assumes that threat is sufficient to bring about a changing action (Becker, 1974; Becker & Rosenstock, 1987).

This current study has shown that many regular drug users were concerned about the threat of HIV infection, but not all changed their behaviour. Furthermore, respondents often reported the negative side to drug use and few would have recommended use to others, but again not all these respondents had reduced or stopped their drug use. Therefore it is clear that cognitions other than perceived threat or susceptibility (HBM), or negative attitudes to use (TRA) are necessary to explain change. Furthermore cognitions such as self-efficacy beliefs allow for the development of a model that portrays change as a process which includes action plans arising from one's beliefs that one can carry out the required action.

Studies that initially found perceived severity and outcome expectancy to be predictive of behaviour change, have reported that the predictive nature of these cognitions are lost when self efficacy is entered into the analysis (e.g. Beck & Lund, 1981).

The importance of self-efficacy beliefs in AIDS preventative behaviour was shown in a study of gay men carried out by McKusick and colleagues (McKusick et al., 1990). This indicated that beliefs in one's ability to adopt low-risk sexual practices was the most important predictor of then doing so. In a study of Dutch drug addicts self-efficacy was the most potent predictor of condom use and the use of sterile injecting equipment (Kok et al., 1990).

Schwarzer has developed a social-cognitive model derived from several theories of health behaviour. This model clearly distinguishes between a *motivation* stage which incorporates perceived threat, outcome expectancies (including social expectancies, subjective norms), and self-efficacy expectancies, and an *action* stage which incorporates the volitional processes of making action plans and action controls, which are influenced by perceived barriers and social support. The motivation stage is seen as leading to the development of *intention*, with self-efficacy having the dominant influence on its development although all strands of the motivation stage interrelate and affect intention. Self-efficacy is also said to have a strong influence on the volitional processes of action plans and controls, where self-efficacy perceptions have an ongoing role in the maintenance of change.

Therefore in relation to this study it is not particularly surprising that the simplistic measures of cognitions and intentions were not successful in predicting change. Changing one's behaviour is a result of a complex process involving social, psychological and environmental factors, all of which interact to form either proximal or distal influences on behavioural intentions and resulting actions. This study did not facilitate the examination of maintenance of change achieved over a great length of time, since it was funded for a specified and limited duration .

6.2.4. Change as a result of maturation

The most basic indicator of maturation, age, was not found to be predictive of change in drug use. Other indices of maturation, or life change, potentially could

have added to prediction, such as becoming pregnant, or married, or both. These however were rare occurrences and therefore were not entered into complex statistical analyses. Longitudinal studies of large samples that incorporate several follow-up interviews over many years would be better placed to examine maturational effects on drug use. The concept of "maturing out" was proposed by Winick (1962) on his discovery that the average length of "drug addiction" was between eight and ten years and that the majority of drug "addicts" had given up drugs by the time they were in their late 20's or early 30's. Drug use was thought to be given up "spontaneously" as a function of age and the time involved in drug use or as an "addict". In this study age was entered into a separate Discriminant Function analysis from career, since these variables are obviously confounded. Career was used as an indicator of involvement; it equally could have been used as a potential predictor of maturational change. However no significant difference was found in the lengths of drug-using "careers" reported by Reducers (9.2. years) and that of Statics (10.6 years) and Progressors (11.4 years). In fact, Reducers had the **shortest** careers, which fits the alternative explanation of change i.e. that one stops before one becomes irretrievably "hooked" on both the drug and its concomitant lifestyle.

Obviously one is limited in the extent to which "maturing out" as proposed by Winick, can be considered in relation to this study group. Unlike Winick's sample, this study does not solely contain users of heroin, far less heroin "addicts".

6.2.5. The influence of HIV/AIDS

Concern about HIV infection was seen to be high amongst this study group at both interviews, firstly in 1988 and secondly in late 1989. Not all of the regular illicit drug users recruited to this study could be said to have been at equal "risk" of infection; although the majority were sexually active, many reported themselves to be in long-term monogamous relationships. Concern about HIV infection had

declined over the 18 months between interviews. The author attributed this to the discovery that many respondents had changed aspects of their drug use or of their sexual behaviour. The "threat" of becoming infected may therefore have been perceived to have diminished. Other longitudinal studies that have addressed behaviour change in the light of the threat of HIV infection have also found that drug users can be successful in adopting risk reduction strategies, although some strategies are adopted more readily than others. For example, a study of drug injectors attending injecting equipment exchange schemes throughout the UK indicated that changes in the frequency of needle sharing were more common than were changes in sexual behaviour such as increased use of condoms (e.g. Stimson et al., 1988). Stimson also found that condom use had decreased by the time of follow-up (unfortunately, however, the time between data collection periods was small, only 2-4 months), which these authors suggested may be a result of more respondents reporting "partner selectivity". As in this thesis, these authors have attempted to explain their findings by suggesting that partner selectivity reduced the number of subjects that saw the need for the further protection of condoms, by reducing the "perceived threat" of infection.

AIDS had become visible in several locations where the author contacted respondents during late 1989 and 1990. The author attended several funerals of young drug injectors who had become HIV infected during the early 1980's. There was an air of resignation amongst those infected, coupled with an admirable philosophy of "making the best out of what life is left". Single mothers were faced with decisions regarding provision for their children on the event of their deaths. Infected females without children were faced with the choice of never having any or of risking both their health and that of a longed for child. Inevitably a lot of faith was placed in the medical "experts" and the discovery of a cure. These issues are elaborated further in a recent textbook (Bury, Morrison & McLachlan, 1992). This study could not enter into detailed examination of the issues facing HIV

infected women since the study contained only a small number of people who were HIV seropositive.

Concern about HIV infection at first interview was not found to be predictive of change in drug use in terms of what was used (the main rationale behind the sub-group categorisation used in this study). High proportions of Statics, Reducers and Progressors reported concern about infection; fewer Reducers in fact reported high levels of concern than those in the other two movement groups.

The spread of HIV infection was, according to a much quoted report (Advisory Council on the Misuse of Drugs, 1988) ;

" a greater danger to individual and public health than drug misuse " (p75)

and certainly in this study the perceived threat of HIV infection was seen by respondents to be greater than those relating to the perceived threat of adverse outcomes of drug use in itself (e.g. overdose, imprisonment, etc).

6.3. Advantages and Limitations of the Study

6.3.1. The use of " snowballing"

The major limitation of employing snowballing as a means of contacting potential study respondents is that it elicits a self-selecting group of individuals that may or may not be representative of those involved in the behaviour under study. In contrast, this method is also the most efficient if the aim of a study is to examine closely individuals who share certain characteristics, the defining one in this study being the use of **any** illicit drug.

"Key informants" are often used to facilitate entry by the researcher into groups of individuals. (Such persons are often used informally in community-based studies, whether "snowballing" is subsequently used or not). One immediate limitation of this is that these key persons may deliberately or inadvertently deny the researcher access to certain individuals. For example, a key informant is unlikely to introduce

the researcher to people he/she regards as enemies, or competitors, or even ex-partners or people he/she simply disapproves of, for whatever reason. Furthermore once researchers identify themselves with particular users, other users may keep their distance for the same reasons as above. Therefore the characteristics and social standing (within the immediate social milieu) of key informants is extremely important to the success of the research. However, few researchers are in a position to select who they use as such "keys", and certainly in this study such people tended to nominate themselves to the position (" I will help you to meet people, I will introduce you to my friends "). To get around this potential bias this study utilised the co-operation of several persons, often more than one person in each locale. Furthermore, snowballing provides all respondents with the opportunity to introduce the researcher to other people. Hence the role of the initial informant becomes increasingly distal.

Therefore in spite of the actual and potential limitations of this method, it is considered to be an efficient means of gaining entry and movement through "deviant" groups.

6.3.2. A prospective design

In order to better address issues of causality it is beneficial to adopt a prospective design. This study was fortunate in that the funding obtained (i.e. for four years) made this possible on a limited basis. However, it is likely that the predictive ability of different measures have different time courses, and the 18 month gap between interviews in this study may not have been adequate to assess the impact of some baseline measures upon outcomes. In addition, a causal link between two measures identified and interpreted as important at 18 months, may cease to be predictive of the same outcome behaviour after 36 months. For example, a relationship was suggested between low baseline frequency of use of tranquillisers

and progression; different baseline measures may emerge as predictive of progression found at 36 months.

Therefore it is preferable for studies to follow up respondents at several points in time, over as many years as possible. Such studies are inordinately expensive and therefore few have been conducted in the United Kingdom.

6.3.3. Model building

Many of the research studies reviewed in this thesis were purely descriptive in nature. Few attempted to fit their data to the existing theories of drug use or to models of behaviour and behaviour change. It is crucial for more studies to encompass theory testing into their design, only then will the processes of becoming and remaining a drug users be apparent. Currently there are many theories which come from different directions and stances and there is therefore a need for the development of a unified theory of drug use which acknowledges the importance of social, psychological, environmental, and individualistic factors.

Knowledge-attitude-behaviour models of drug use, (as well as of other behaviours) have been put forward as the best explanation of why people carry out certain acts. This study has suggested that models which focus primarily on one aspect of the individual (e.g. his/her cognitions) are over simplistic. The role of external factors and the interaction of intentions upon action are now recognised as being of equal importance to, say, increasing individual knowledge in the hope that this will lead to a change in attitude and therefore a change in behaviour.

6.4. Future Implications

6.4.1. Implications for future research

This study employed a combination of qualitative and quantitative methods. Although the main emphasis in writing this thesis has been upon the quantitative

data, the author believes that where utilised, the qualitative material has added much to the interpretation of the "hard" data.

Several interesting sociological studies of drug users have been carried out which have relied almost exclusively on observation and note-taking (after the event) (e.g. Burr, 1983, 1984; Pearson, 1987; McKeganey, 1990). These studies were adequately suited to the authors' purpose of addressing sociological theories of use by obtaining the viewpoints of those involved in the drug use. Certainly the "interviews" with users were not totally unstructured but fell into frameworks designed by the researchers, for example the use of an ordered set of open-ended questions. However it is more acceptable (scientifically) to test theoretical models by employing standardised measures such as frequency of use diaries, Likert scales of beliefs and attitudes, etc. However, standardised measures are also subject to response biases in that respondents may respond according to what they think is expected of them or in a manner that makes them appear to conform to socially acceptable norms of behaviour. Even well designed self-report questions are subject to problems of normal forgetting and the reconstructive nature of human memory, in spite of the finding that most people answer the questions about past events honestly (as they remember them) and reliably (e.g. Ball, 1967; Collins et al., 1982; Barnea, Rahav & Teichman, 1987).

There is a further need in the drugs research field to use consistent definitions and cut-off points as to what level of consumption constitutes "use", and what constitutes "abuse". Although any cut-off point is bound to be an almost arbitrary one, it would benefit study comparability both nationally and internationally, if guide-lines were set up and adhered to. It is also essential that it is recognised that what is use for one person, may be abuse by another, in that the effect of a drug and the consequences arising from its consumption can vary from one person to another. Being labelled as a drug "abuser" should not arise simply by virtue of using a certain drug with a certain arbitrarily decided upon frequency.

In addition, studies that attempt to describe the prevalence of illicit drug use in a population need to consistently distinguish between the numbers of respondents who report "ever" having used a substance and those that are "current" users of a substance. Otherwise we are left with the hypothetical situation whereby the media could report that, " a fifth of school pupils use drugs" ; when in fact, a fifth of sixth formers may have tried cannabis at one point in their lives, but only a handful may be currently using it with any regularity. "Current" use is also often a misnomer, being defined as use within the last year in some studies, and use within the last month in others. These discrepancies need to be resolved.

Finally, although the methods used within this study had the advantage of enabling the collection of detailed, in-depth data from a small numbers of drug users, and as such has produced some extremely illuminative results; there is a limit to the extent to which these findings can be extrapolated to other populations. The ideal study would constitute equally in-depth interviewing , but of a larger sample, with some respondents contacted in the community and others contacted in schools, treatment centres and prisons. British studies to date tend to be either detailed examination of the behaviour of small numbers of drug users in one type of location (e.g. clinics), or less detailed examination of the drug use of larger samples (school pupils).

This study has raised the issue of what brings about changing patterns of drug use at the individual level. It is surely as important to examine what factors predict continuation, progression and reduction or cessation, as it is to identify predictors of initiation, given that education aimed at limiting the potential damage of drug use needs to be aimed at those already using drugs. This study has attempted to test specific models or theories of change and as a result examined only a selection of possible predictors variables. In order to clarify further some of the diffuse findings of this study, a larger scale study, employing the same methodology would be beneficial.

6.4.2. Implications for treatment and policy

This study supports the general body of evidence that drug use is a complex behaviour stemming from a complex aetiology . As such no single policy is likely to be able, if that is its intention, to control or prevent drug use, or, more importantly, drug problems. Each class of drug and each mode of use needs to be considered separately, rather than all illegal drugs being "lumped" together as if they are equally prevalent or equally damaging to the individual or to wider society.

Therapeutic responses likewise need to widen their horizons beyond an emphasis on those using or dependent on opiates. Regular users of other substances such as Ecstacy, amphetamines or tranquillisers can also experience adverse health and psychological consequences of use, yet few services or treatment centres are available for these users. Many of the services required are not related to the act of drug use itself, such as access to housing , advice on financial and welfare issues, legal advice etc. As Strang (1989, p148) points out;

" Under the rubric of "the drug-taker" there exist many different individuals whose problems and service-needs vary considerably. Many of these problems will be of a kind not dissimilar to those encountered by some of the population who do not use drugs ".

Existing drugs services therefore need to recognise the range of issues drug users need support on, rather than focussing in on just one aspect of their lives, their drug use.

Currently, the medical treatment of injecting drug users in Scotland adopts a risk-reduction approach, offering oral (or at least, this is the mode of use promoted) maintenance treatments with a range of prescribed drugs. Whilst some prescribers are reluctant to consider the benefits of anything other than Methadone (such has been the majority stance of many practitioners in Glasgow), Edinburgh injectors have been able to obtain additional substances such as the benzodiazepines , Valium and Temazepam. This study has shown respondents who have received several different drugs on prescription, and who have continued to inject and to supplement

their prescribed doses with black market purchases. This may not be acceptable to the prescribers who had as an impetus for setting up prescribing programmes, the need to contain the spread of HIV infection (e.g. Greenwood, 1992). The ultimate goal of abstinence, also aimed for by many practitioners is a distant horizon to many of the drug users interviewed in this study. This is not to say that prescribing does not have a place; it most certainly does, for it brings drug users into contact with services where they can receive additional advice and information, for example relating to the prevention of HIV infection. Several users in this study commented on their reliance on their prescription to keep them " out of trouble ", this was in relation to criminal activity such as shop-lifting in order to raise funds to purchase drugs on the black market. The stabilising function of prescribing is an important one and, I hope, one that does not lose importance when, in the future, a "cure" is found for AIDS.

British policy on drugs is contradictory inasmuch as alcohol and tobacco production, consumption, and even promotion, are legal, yet these two substances contribute to vast numbers of persons suffering health problems, and dying, each year. Cannabis use is illegal and is often looked upon as a "gateway" to use of "harder" drugs. Yet research has consistently pointed to the fact that all cannabis users do **not** progress to the use of other substances. In fact the illegal status of cannabis probably *facilitates* progression for those that choose to do so, in that the likelihood of coming into contact with users of "harder" drugs is increased. The legalisation , or at least the decriminalization of cannabis would go some way towards reducing the dominance of the black market over cannabis supply by transferring an element of control to legal bodies licensed to import and sell this drug. Keeping the use of cannabis underground has neither social nor individual advantage.

Drugs policy has itself been thought to contribute to further problems, for example, the mid-1980's anti-heroin campaign and the resultant anti-injecting publicity made it even harder for those involved in such practices to get hold of clean injecting

equipment. This can potentially be linked to the perseverance of sharing practices which, at least in Edinburgh, resulted in the rapid spread of HIV infection through the drug-injecting population.

6.4.3. Implications for education and prevention

There has always been a problem with drug use in that few people were clear as to what "kind" of problem it was. As Stimson (1990) noted ;

" Is the problem, as was argued a hundred years ago, a moral illness, a disease that affects the individual's will? Is it a medical problem - a disease with a clear aetiology, prognosis and treatment ? Is it a criminal problem, a matter for legislation and law enforcement? Is it basically a moral problem - that we do not like what drug users do ? Is it a social problem - a reflection of structural disadvantage and alienation ? Or, to preview recent debate on AIDS and drugs, is it a public health problem ? " (p332)

The author considers that the public health view of drug use, highlighted by the advent of HIV infection, is the one of greatest relevance to those involved in education and prevention. Drug use has always been, and always will be, present in our society, and, as Gossop (1987) observed;

" The desire to experience some altered state of consciousness seems to be an intrinsic part of the human condition ". (p230)

It is therefore essential for health education to take the often unpopular stance of a "harm reduction" approach. This study has shown that although not all regular users of illicit drugs experience problems related to use, many do. Recent research has highlighted the need to move beyond a focus on the risk of drug injecting and the sexual behaviours of those who inject, to a concern for users of other, non-injected, mind-altering drugs such as alcohol, since intoxication or heavy use of such substances has long been linked to a decreased likelihood of engaging in safer sex practices (e.g. Soloman & Andrews, 1973; Room & Collins, 1983; Stall et al., 1986; Robertson & Plant, 1988; Plant, 1993). An increase in the provision of health education in schools, which includes components on safe alcohol and drug use as well as on safer sex, is therefore essential.

This study found evidence of sexual behaviour change amongst non-opiate users and non-injectors; however many of the changes affected could be described as "grey" areas of risk reduction - greater partner selectivity is no guarantee against infection. Education is therefore needed at this level. It must be recognised, however, that recent educational efforts aimed at preventing drug or alcohol use and abuse have had limited success rates (e.g. Coggans et al, 1989; Bagnall, 1991). The timing of educational interventions are important. It has been suggested that educational programmes targeted at the very young, i.e. those who are not yet showing any interest in drug use, are likely to be viewed as irrelevant and thus will not be successful in preventing drug use in later years (e.g. Pickens, 1983). Similarly, programmes targeted at those already initiated into alcohol or illicit drug use have limited success rates; perhaps because the educational message in such situations has to compete with messages about use received from peers and through personal experience. The credibility of the message is therefore crucial. As Plant and Plant (1992 p125) concludes from their review;

" ..the use of fear-arousing or "horror film" approaches is clearly unproductive and should be avoided at all costs ."

In terms of prevention of drug use there is unlikely to be any realistic chance of preventative efforts succeeding for any more than a handful of persons who had likely already decided that drug use " wasn't for them " ! It **is** perhaps necessary to endeavour to prevent drug " problems" (abuse and misuse), however it would be unrealistic to attempt to eradicate drug " use ".

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APPENDIX ONE : INTERVIEW SCHEDULE

INTRODUCTION

You will probably remember being interviewed approximately one year ago. This questionnaire is along the same lines as before but is slightly shorter. Once again, all the information given is strictly confidential and the identities of people helping this study are totally safeguarded.

FOR OFFICE USE ONLY: CARD ONE — COLS 1 2 3

RESPONDENT CODE [ ] [ ] [ ]

4

WAVE NUMBER TWO [2]

5 6

CARD NUMBER ONE [0] [1]

PERSONAL HISTORY

Date of Birth - Age in years - Cols. 7 8 [ ] [ ]

Sex - Col.9

Male	1
Female	2

A1 Is the place where you live at the moment? Col.10

Privately owned flat/house	1
Privately rented flat/house	2
Council flat/house	3
Lodgings/Bed and breakfast	4
No fixed abode/living rough	5
Other (please specify)	6

.....

A2 Who lives there with you? Col.11

No-one, live alone	1
Friends	2
Spouse/cohabitee	3
Cohabitee and child(ren)	4
Both parents and siblings	5
One parent and siblings	6
Parent, step-parent	7
Parent, step-parent & siblings	8
Child(ren) only	9
Other relatives	X
Other (please specify)	Y

.....

A3 Are you married? Col.12

(Record status and code accordingly)

Single and not in a relationship	1
Single but in a relationship	2
Cohabiting/living together	3
Married	4
Separated/divorced	5
Widowed	6

A4 Do you have any children? Col.13

None	0
One	1
Two	2
Three	3
More than 3	4

A5 Do you have to support anyone financially? Col.14

Yes	1
No	2

IF YES, ASK A6 - IF NO GO TO A7

A6 Whom do you support? Col.15

Child	1
Children	2
Parent	3
Parents	4
Child(ren) and Parent(s)	5
Other (please specify)	6

.....

A7 Would you say you get on well with your immediate family? Col.16

All the time	1
Most of the time	2
Now and then	3
Never	4

A8 Is there anyone you don't get on with - if so whom? Col.17

(Code one only)

Mother	1
Father	2
Older brother	3
Older sister	4
Younger brother	5
Younger sister	6
Other (please specify)	7

.....

Get on with everyone	0

A9 Do your parents work? - if so record below their occupations

OFFICE USE ONLY
(CODE mean ses and circle appropriate number)

....

	Col.18
Professional	1
Intermediate	2
Non manual skilled	3
Manual skilled	4
Semi skilled	5
Unskilled	6
Forces	7
Unemployed	8
One or both deceased	0

A10 Are you working at present?

	Col.19
Yes	1
No	2

IF YES, GO TO A11:
IF NO, GO TO A15

A11 What are you doing at the moment?
(record and assign socioeconomic status 1-8)

.....

Col.20

1
2
3
4
5
6
7
8

A12 For how long have you had this job?

	Col.21
Less than 6 months	1
6 months - 1 year	2
1 - 3 years	3
More than 3 years	4

A13 What job have you stayed in longest?
(record and assign socioeconomic status 1-8)

.....

Col.22

1
2
3
4
5
6
7
8

A14 What proportion of your friends are unemployed?

	Col.23
None	0
1-5%	1
6-24%	2
25-49%	3
50-74%	4
More than 75%	5
Don't know	6

NOW GO TO A25

A15 How long have you been unemployed?

	Col.24
Less than 6 months	1
6 months to 1 year	2
1 year to 2 years	3
Between 2 and 3 years	4
More than 3 years	5

A16 When did you last work?

	Col.25
Within past 6 months	1
7-12 months ago	2
13 months - 2 years ago	3
25 months - 3 years ago	4
37 months - 5 years ago	5
More than 5 years ago	6
Never worked	7

IF NEVER WORKED, GO TO A21

A17 What was your last job?
(record and assign socioeconomic status 1-8)

.....

Col.26

1
2
3
4
5
6
7
8

A18 How long did you work there? (in months)

....

	Col.27
Less than a month	1
1 - 6 months	2
7 - 11 months	3
1 - 2 years	4
25 months - 5 years	5
Over 5 years	6

A19 Why did you leave?

	Col.28
Scheme (e.g. Youth Training Scheme) ended	1
Became dissatisfied with job	2
Got dismissed/"sacked"	3
Made redundant	4
Other (please specify)	5

.....

A20 What job have you done longest?
(record and assign socioeconomic status 1-6)

	Col.29
	1
	2
.....	3
	4
	5
	6
	7
	8

A21 What proportion of your friends are unemployed?

	Col.30
None	0
1-5%	1
6-24%	2
25-49%	3
50-74%	4
More than 75%	5
Don't know	6

A22 How often do you look for work - go to job centre etc.?

	Col.31
Daily (i.e. 6 days a week)	1
2-5 times a week	2
Once a week	3
About once a month	4
About once in 6 months	5
Never	6

IF NEVER, ASK A23

A23 Why don't you look for work?

	Col.32
Don't want to work	1
No jobs to look for	2
Discouraged because often unsuccessful	3
Other (please specify)	4

.....

A24 Which of the following do you think are reasons you are unemployed?

		Col.33
National economy/government policy	Yes	1
	No	2
	Don't know	3
		Col.34
Lack of qualifications	Yes	1
	No	2
	Don't know	3
		Col.35
Lack of work experience	Yes	1
	No	2
	Don't know	3
		Col.36
Criminal record	Yes	1
	No	2
	Don't know	3
		Col.37
Drug use (including alcohol)	Yes	1
	No	2
	Don't know	3

A25 What qualifications do you have?
(Code only highest)

	Col.38
None	0
CSE's	1
"O" grades	2
Highers/A levels	3
Diploma/HND/City and Guilds	4
Degree	5
Other (please specify)	6

.....

A26 How old were you when you left school?

	Col.39
Under 16 years	1
16 years	2
17 years	3
18 years	4
19 years or over	5

A27 Have you ever attended any form of further education? Col.40

and record what

Yes	1
No	2

.....

.....

HAVE 'COMING IN' AND WHAT YOU SPEND IT ON. I WOULD LIKE YOU TO TRY TO GIVE ME THE AVERAGE EARNINGS OR COSTS, AS OBVIOUSLY THEY MAY VARY FROM WEEK TO WEEK. (If are joint finances, note both partners income and joint expenditure).

FINANCIAL DETAILS

		Cols.
A28	If working, what is your take home pay per week? [3 digits to nearest £]	41,42,43 [ ][ ][ ]
A29	If unemployed, how much do you get per week from the following? (2 digits to nearest £)	Cols.
	a) Unemployment/Supplementary Benefit	44 45 [ ][ ]
	b) Family Allowance	46 47 [ ][ ]
	c) Other (please specify)	48 49 [ ][ ]
	.....	

HOW MUCH DO YOU GET WEEKLY FROM THE FOLLOWING - (IN £)	Cols.
A30 Renting out property, or part of, to others?	50 51 52 [ ][ ][ ]
A31 Student or other grants	53 54 55 [ ][ ][ ]
A32 Allowances or gifts from family	56 57 58 [ ][ ][ ]
A33 Interest from savings or investments	59 60 61 [ ][ ][ ]
A34 Casual work i.e. without tax or National Insurance	62 63 64 [ ][ ][ ]
A35 Stealing or resetting goods	65 66 67 [ ][ ][ ]

OFFICE USE ONLY - CARD TWO

	COLS.
	1 2 3
RESPONDENT CODE	[ ][ ][ ]
WAVE NUMBER TWO	COL. 4 [2]
CARD NUMBER TWO	COL. 5 + 6 [0][2]

		Cols.
A36	Fraud; lying or forging to get money	7 8 9 [ ][ ][ ]
A37	Selling drugs	10 11 12 [ ][ ][ ]
A38	Borrowing from friends or relations	13 14 15 [ ][ ][ ]
A39	Borrowing from loan companies, pawnbrokers etc.	16 17 18 [ ][ ][ ]
A40	Prostitution	19 20 21 [ ][ ][ ]
A41	Gambling	22 23 24 [ ][ ][ ]
A42	Begging or busking.....	25 26 27 [ ][ ][ ]
A43	Receiving money or goods from charity	28 29 30 [ ][ ][ ]
A44	Other sources (please specify)	31 32 33 [ ][ ][ ]
	.....	34 35 36 [ ][ ][ ]

FOR OFFICE USE ONLY

		Cols.
	TOTAL INCOME	37 38 39 40 [ ][ ][ ][ ]
Breakdown	Total legitimate income	41 42 43 44 [ ][ ][ ][ ]
	Total illegitimate income	45 46 47 48 [ ][ ][ ][ ]

WHAT ABOUT EXPENSES: HOW MUCH WOULD YOU SAY YOU SPENT PER WEEK ON THE FOLLOWING: (3 digits to nearest £).

		Cols.
A45	Room and board (if you pay a lump sum for this)	49 50 51 [ ][ ][ ]
A46	Rent or mortgage	52 53 54 [ ][ ][ ]
A47	Meals	55 56 57 [ ][ ][ ]
A48	Snack food	58 59 60 [ ][ ][ ]
A49	Loans, fines: credit payment, hire purchase, bank	61 62 63 [ ][ ][ ]
A50	Bills: gas, electric, rates, telephone etc. ...	64 65 66 [ ][ ][ ]
A51	Laundry and general household expenses	67 68 69 [ ][ ][ ]
A52	Clothes	70 71 72 [ ][ ][ ]
A53	Alcohol	73 74 75 [ ][ ][ ]
A54	Cigarettes and/or tobacco	76 77 78 [ ][ ][ ]

OFFICE USE ONLY -- CARD THREE

	Cols
RESPONDENT CODE	1 2 3 [ ] [ ] [ ]
WAVE NUMBER TWO	Col. [2]
CARD NUMBER THREE	Cols.5+6 [0] [3]

		Cols.
A55	Illegal drugs	7 8 9 [ ] [ ] [ ]
A56	Pets' (food etc.)	10 11 12 [ ] [ ] [ ]
A57	Entertainment - entrance fees to cinemas, dances etc.	13 14 15 [ ] [ ] [ ]
A58	Gambling	16 17 18 [ ] [ ] [ ]
A59	Hobbies/interests e.g. music, books, sports etc.	19 20 21 [ ] [ ] [ ]
A60	Travel - taxi, bus, train, car, bike	22 23 24 [ ] [ ] [ ]
A61	Support payments - maintenance, alimony etc.	25 26 27 [ ] [ ] [ ]
A62	Anything else (please specify)	28 29 30 [ ] [ ] [ ]
	.....	

OFFICE USE ONLY

		Cols.
	TOTAL EXPENDITURE	31 32 33 34 [ ] [ ] [ ] [ ]
Breakdown	Total legitimate expenditure	35 36 37 38 [ ] [ ] [ ] [ ]
	Total illegitimate expenditure	39 40 41 42 [ ] [ ] [ ] [ ]
	Total budget balance (Total income minus total expenditure)	43 44 45 46 [ ] [ ] [ ] [ ]
	Legitimate budget balance (Legitimate income minus legitimate expenditure)	47 48 49 50 [ ] [ ] [ ] [ ]
	Illegitimate budget balance (Illegitimate income minus illegitimate expenditure)	51 52 53 54 [ ] [ ] [ ] [ ]

FINANCIAL OR WHATEVER, WHO WOULD YOU BE MOST LIKELY TO DISCUSS IT WITH? Col.55

Mother	1
Father	2
A brother or sister	3
A friend	4
Lover/spouse	5
A professional/counsellor	6
Any one of above	7
No one	8
Other (please specify)	9
.....	

A64 a) Have you ever been to see a social worker about any problems? Col.56

Yes	1
No	2

IF NO, GO TO d)

b) Can you remember whether the problem was a Col.57

Legal problem	1
Health problem	2
Family problem	3
Other relationship problem	4
Accommodation problem	5
Work-related problem	6
Financial problem	7
Emotional problem	8
Other problem (please specify)	
.....	9

c) In your opinion, was this problem drug related? Col.58

Yes	1
No	2
Unsure	3

d) In your opinion, can or do, social workers help you with any drug-related problems you may experience? Col.59

Yes	1
No	2
Unsure	3

continued ...

is this because social worker unable to help/ unwilling to help, because you don't know if could help or because you don't think have a problem which needs help, etc.)

Col.60

..... [ ]

.....

A65 a) Have you ever been to the Citizens Advice Bureau (CAB) about any problems?

Col.61

Yes 1
No 2

IF NO, GO TO d)

b) Can you remember whether the problem was a

Col.62

Legal problem 1
Health problem 2
Family problem 3
Other relationship problem 4
Accommodation problem 5
Work-related problem 6
Financial problem 7
Emotional problem 8
Other problem (please specify) 9

.....

c) In your opinion was this problem drug related?

Col.63

Yes 1
No 2
Unsure 3

d) In your opinion, can or does, the C.A.B. help you with any drug-related problems you may experience?

Col.64

Yes 1
No 2
Unsure 3

e) If no, please explain why not (prompts as in 64e)

Col.65 [ ]

.....

A66 Do you find discussing problems with other people ?

Col.66

Usually easy 1
Usually difficult 2
Depends on problem - either 3
Never discuss my problems 4
Don't know 5

DRUG USE HISTORY 1 B

The following is a list of drugs with various questions to be asked about each. Please answer as fully as possible, thinking back to important events to help you remember times you took whichever drugs.

For each drug that you have ever tried I'd like to know how many days in the past week, the past month (i.e. 4 weeks), and in the past year (12 months) you took the drug; allowing for times when you may have been away from home (e.g. in hospital or prison).

	Ever y/n	Age First Used	Week 7 days	Month 28 days	Year days
B1 Alcohol					
B2 Tobacco					
B3 Cannabis					
B4 Tranquillisers (Valium, Librium, Ativan, Upjohns, Temazepam, etc.)					
B5 Barbs-Sedatives (Tuinal, Seconal, Nembutal, Amytal, Mogadon, etc.)					
B6 LSD (acid)					
B7 Magic mushroom					
B8 Amphetamines (sulph, speed, dexedrine, durophet)					
B9 Heroin					
B10 Methadone					
B11 Other painkillers e.g. Morphine, DF118's, Temgesic					
B12 Diconal/Palfium					
B13 Cocaine					
B14 Crack					
B15 Glue/solvents					
B16 Other (please specify					

DRUG USE HISTORY 1 - CODING DETAILS B

OFFICE USE ONLY - CARD FOUR — Cols. 1 2 3 — [ ][ ][ ]

RESPONDENT CODE

WAVE TWO — 4 — [2]

CARD FOUR — 5 + 6 — [0] [4]

B1 Alcohol [OFFICE USE ONLY]

a) Ever used	Yes / No	Col. 7 — 1 / 2
b) Age first used in years		Cols.8 & 9 — [ ][ ]
c) Days in week		Col.10 — [ ]
d) Days in month		Cols.11 & 12 — [ ][ ]
e) Days in year		Cols.13 14 15 — [ ][ ][ ]

B2 Tobacco

a) Ever used	Yes / No	Col. 16 — 1 / 2
b) Age first used in years		Cols.17 & 18 — [ ][ ]
c) Days in week		Col. 19 — [ ]
d) Days in month		Cols.20 & 21 — [ ][ ]
e) Days in year		Cols.22,23,24 — [ ][ ][ ]

B3 Cannabis

a) Ever used	Yes / No	Col. 25 — 1 / 2
b) Age first used in years		Cols.26 & 27 — [ ][ ]
c) Days in week		Col. 28 — [ ]
d) Days in month		Cols.29 & 30 — [ ][ ]
e) Days in year		Cols.31,32,33 — [ ][ ][ ]

B4 Tranquillisers

a) Ever used	Yes / No	Col.34 — 1 / 2
b) Age first used in years		Cols.35 & 36 — [ ][ ]
c) Days in week		Col.37 — [ ]
d) Days in month		Cols.38 & 39 — [ ][ ]
e) Days in year		Cols.40,41,42 — [ ][ ][ ]

B5 Barbs/Sedatives

a) Ever used	Yes / No	COL.43 — 1 / 2
b) Age first used in years		COL.44 & 45 — [ ][ ]
c) Days in week		COL.46 — [ ]
d) Days in month		COL.47 & 48 — [ ][ ]
e) Days in year		COLS.49,50,51 — [ ][ ][ ]

B6 LSD

a) Ever used	Yes / No	COL.52 — 1 / 2
b) Age first used in years		COL.53 & 54 — [ ][ ]
c) Days in week		COL.55 — [ ]
d) Days in month		COL.56 & 57 — [ ][ ]
e) Days in year		COLS.58,59,60 — [ ][ ][ ]

B7 Magic Mushrooms

a) Ever used	Yes / No	COL.61 — 1 / 2
b) Age first used in years		COL.62 & 63 — [ ][ ]
c) Days in week		COL.64 — [ ]
d) Days in month		COL.65 &66 — [ ][ ]
e) Days in year		COLS.67,68,69 — [ ][ ][ ]

B8 Amphetamines

a) Ever used	Yes No	COL.70 1 2
b) Age first used in years		COL.71 & 72
c) Days in week		COL.73
d) Days in month		COL.74 & 75
e) Days in year		COLS.76,77,78

FOR OFFICE USE ONLY - CARD FIVE

COLS 1 2 3

RESPONDENT CODE [ ] [ ] [ ]

WAVE TWO COL.4 [2]

CARD FIVE COLS. 5 + 6 [0] [5]

B9 Heroin

a) Ever used	Yes No	COL.7 1 2
b) Age first used in years		COL. 8 & 9
c) Days in week		COL.10
d) Days in month		COL. 11 & 12
e) Days in year		COLS. 13,14,15

B10 Methadone

a) Ever used	Yes No	COL.16 1 2
b) Age first used in years		COL. 17 & 18
c) Days in week		COL.19
d) Days in month		COL. 20 & 21
e) Days in year		COLS. 22,23,24

B11 Other Painkillers

a) Ever used	Yes No	COL.25 1 2
b) Age first used in years		COL.26 & 27
c) Days in week		COL.28
d) Days in month		COL.29 & 30
e) Days in year		COLS.31,32,33

B12 Diconal/Palfium

a) Ever used	Yes No	COL.34 1 2
b) Age first used in years		COL.35 & 36
c) Days in week		COL.37
d) Days in month		COL.38 & 39
e) Days in year		COLS.40,41,42

B13 Cocaine

a) Ever used	Yes No	COL.43 1 2
b) Age first used in years		COL. 44 & 45
c) Days in week		COL. 46
d) Days in month		COL. 47 & 48
e) Days in year		COLS. 49,50,51

B14 Crack

a) Ever used	Yes No	COL.52 1 2
b) Age first used in years		COL. 53 & 54
c) Days in week		COL. 55
d) Days in month		COL. 56 & 57
e) Days in years		COLS.58,59,60

B15 Glue/solvents

		COL.61
a) Ever used	Yes	1
	No	2
b) Age first used in years		COL. 62 & 63 [ ] [ ]
c) Days in week		COL.64 [ ]
d) Days in month		COL.65 & 66 [ ] [ ]
e) Days in years		COLS.67,68,69 [ ] [ ] [ ]

B16 Others (1) .....

		COL.70
a) Ever used	Yes	1
	No	2
b) Age first used in years		COL. 71 & 72 [ ] [ ]
c) Days in week		COL.73 [ ]
d) Days in month		COL. 74 & 75 [ ] [ ]
e) Days in years		COLS. 76,77,78 [ ] [ ] [ ]

FOR OFFICE USE ONLY - CARD SIX

	COLS. 1 2 3
RESPONDENT CODE	[ ] [ ] [ ]
WAVE NUMBER TWO	4 [2]
CARD NUMBER SIX	5 + 6 [0] [6]

DRUG USE HISTORY 2

B17 Is there any drug included in the above list which you have used less than 12 times this year, and that you used to use regularly (i.e. at least once a month)?

	COL.7
Yes	1
No	2

IF YES, CONTINUE TO END OF SECTION.
IF NO, START NEXT SECTION ON DRUG DETAILS.

B18 What drug(s) was it/were they? (Assign number to drug according to table on page 14)

	COLS 8 9	10 11
a)	[ ]	[ ]
b)	[ ]	[ ]

B19 How often did you use this drug(s)?

		COL.12
name drug a)	Daily	1
	4-6 times a week	2
	1-3 times a week	3
	1-2 days a month	4

		COL.13
name drug b)	Daily	1
	4-6 times a week	2
	1-3 times a week	3
	1-2 days a month	4

DRUG USE HISTORY - ILLICIT DRUGS

Fill in the following details for the two drugs used most frequently in the past year.

DO NOT INCLUDE ALCOHOL OR TOBACCO HERE.

CARD 6

[Number drugs according to table on page 12.]
(E.G. Cannabis = 03)

	COLS. 20 21
1st drug name =	[ ] [ ]
2nd drug name =	22 23 [ ] [ ]

I AM NOW GOING TO ASK YOU FOR DETAILS OF 2 THE DRUGS YOU HAVE TAKEN MOST IN THE PAST YEAR.

OFFICE USE ONLY

N.B. CARD SIX CONTINUES IN CRIME SECTION, PAGES 74-77. ENSURE QUESTIONNAIRES HAVE BEEN REARRANGED FOR THIS REASON, PRIOR TO TRANSFERRING TO DISC.

	COLS. 1 2 3
RESPONDENT CODE	[ ] [ ] [ ]
WAVE NUMBER TWO	4 [2]
CARD NUMBER SEVEN	5 + 6 [0] [7]

DRUG ONE = _____ (assign numbers as in list on page 14) COLS. 7 + 8 [ ] [ ]

C1 How old were you when you first tried this drug? COL.9

Under 14 years	1
Between 14-16 years	2
Between 17-20 years	3
Between 21-25 years	4
Over 26 years	5

C2 Who were you with? (Record below and code accordingly) COL.10

Spouse/girl/boyfriend	1
Brother, sister or other relative	2
Male friend	3
Female friend	4
Group of friends	5
Mixed friends and acquaintances	6
Acquaintances	7
Strangers	8
Alone	9
Can't remember	0
Other (please specify)	X

.....

C3 Where were you this first time? COL.11

At school or work	1
At own home	2
At relatives home	3
At friends home	4
At dance/disco	5
In a public bar	6
In prison/young offenders	7
Outside somewhere	8
Can't remember	9
Other (please specify)	X

.....

C4 Where did you get it from? COL.12

Doctor's prescription	1
Relative	2
Friend	3
Dealer	4
Other (please specify)	5
.....	
Can't remember	6

C5 How much did you have this first time? COL.13
(Code according to drug type after interviews) [ ]

C6 How much did you pay for it? COL.14
(Record amount in £s and code).

Free	0
Less than £5	1
Between £5 and £10	2
Between £10 and £20	3
Between £20 and £30	4
Between £30 and £40	5
Between £40 and £50	6
Between £50 and £60	7
Between £60 and £80	8
Between £80 and £100	9
Over £100	X
Can't remember	Y

C7 How did you take it? COL.15

Injected	1
Swallowed (i.e. drank)	2
Snorted	3
Smoked	4
Eaten (i.e. with food)	5
Inhaled	6
Other (please specify)	7
.....	
Can't remember	8

C8 What effect did it have on you?

Relaxed me	1
Made me talkative/happy	2
Made me aggressive	3
Scared me	4
Made me feel (or be) sick	5
Had no effect	6
Can't remember	7
Other (please specify)	8
.....	
Combination of above (Please specify which)	9
.....	

C9 Why did you take it this first time? COL.17
(Record below and code accordingly)

To relax/relieve pressure	1
Out of curiosity	2
Friend/s said was good	3
Was forced/persuaded to	4
To be sociable with friends	5
Couldn't get hold of usual drug	6
To relieve boredom	7
To avoid withdrawal from other drug	8
Other (please specify)	9
.....	
Don't know	X
Combination of reasons (Please specify which	Y
.....	
.....	

C10 When was the last time you took this drug? COL.18

Earlier today	1
Yesterday	2
2-7 days ago	3
8-14 days ago	4
15-30 days ago	5
1-2 months ago	6
3-6 months ago	7
7-12 months ago	8
Over a year ago	9

C11 Who were you with this time?

	COL.19
Spouse-girl/boyfriend	1
Brother, sister or other relative	2
Male friend	3
Female friend	4
Group of friends	5
Mixed friends/acquaintances	6
Acquaintances	7
Strangers	8
Alone	9
Other (please specify)	X
.....	
Can't remember	Y

C12 Where did you get it from?

	COL.20
Doctor's prescription	1
Relative	2
Friend	3
Dealer	4
Other (please specify)	5
.....	
Can't remember	6

C13 How much did you have this time? (Code according to drug type) COL.21 [ ]

C14 How much did you pay for it?

	COL.22
Free	0
Less than £5	1
Between £5 and £10	2
Between £10 and £20	3
Between £20 and £30	4
Between £30 and £40	5
Between £40 and £50	6
Between £50 and £60	7
Between £60 and £80	8
Between £80 and £100	9
Over £100	X
Can't remember	Y

C15 How did you take it?

	COL.23
Injected	1
Swallowed (i.e. drank)	2
Snorted	3
Smoked	4
Eaten (i.e. with food)	5
Inhaled	6
Other (please specify)	7
.....	
Can't remember	*8*

C16 What effect did it have on you this time?

	COL.24
Relaxed me	1
Made me talkative/happy	2
Made me aggressive	3
Scared me	4
Made me feel (or be) sick	5
Had no effect	6
Can't remember	7
Other (please specify)	8
.....	
Combination of effects (Please specify which	9
.....)	

C17 Why did you take it on this occasion?

	COL.25
Like/enjoy it	1
Relax/relieve pressure	2
Out of habit	3
Forced/persuaded to	4
To be sociable with friends	5
Couldn't get hold of usual drug	6
To relieve boredom	7
To avoid withdrawal	8
Other (please specify)	9
.....	
Don't know why	X
Combination of reasons (Please specify which	Y
.....)	

C18 When was the time before that?

RECORD LAPSE IN DAYS (2 digits) COLS. 26 27 [ ] [ ]
i.e. 4 days before last time = 4
2 weeks = 14
etc.
LAPSE =

C19 Would you say the last 2 occasions were typical of when you take this drug? (i.e. same company, same amount as usual etc.)

	COL.28
Yes	1
No	2

IF YES, GO TO C.21

C20 What then is a typical occasion?

a) Who do you normally take it with?

	COL.29
Spouse-girl/boy friend	1
Brother, sister or other relative	2
Male friend	3
Female friend	4
Group of friends	5
Mixed friends and acquaintances	6
Acquaintances	7
Strangers	8
Alone	9
Other (please specify)	X

.....

b) Where do you normally get it?

	COL.30
Doctor's prescription	1
Relative	2
Friend	3
Dealer	4
Other (please specify)	5

.....

c) How much do you normally take? (Code according to drug type after interviews) COL.31 [ ]

d) How do you usually take it?

	COL.32
Injected	1
Swallowed (i.e. drank)	2
Snorted	3
Smoked	4
Eaten (i.e. with food)	5
Inhaled	6
Other (please specify)	7

.....

e) What is your usual reason for taking it?

	COL.33
Like/enjoy it	1
Relax/relieve pressure	2
Out of habit	3
Forced/persuaded to	4
To be sociable with friends	5
If can't get usual drug	6
To relieve boredom	7
To avoid withdrawal	8
Other (please specify)	9

.....

Don't know why	X
Combination (Please specify which	Y

.....)

C21 How old were you when you started taking this drug regularly? (i.e. once a month or more) (Record age in years). COL. 34 35 [ ] [ ]

C22 What would you do if you couldn't get any of this drug, i.e. if you had no money, or not enough money?

	COL.36
Do without	1
Borrow money from someone	2
Steal money from someone	3
Steal something and sell it	4
Prostitution	5
Persuade someone to buy you it	6
Go to Doctors for prescription	7
Take something else (please specify)	8

.....

Other (please specify) 9

.....

C23 Since you began taking this drug regularly, what is the longest time you have gone without any?

	COL.37
Couple of days	1
3-7 days	2
8-14 days	3
15-30 days	4
Between 31 days and 3 months	5
Over 3 months	6
Never gone without	0

C24 Which of the following played a part in you going without this drug?

Didn't have the money	Yes	COL.38 1
	No	2
Health started to suffer	Yes	COL.39 1
	No	2
Saw the damage it was doing to others	Yes	COL.40 1
	No	2
Parent's disapproved and wanted me to stop	Yes	COL.41 1
	No	2
Friends disapproved and wanted me to stop	Yes	COL.42 1
	No	2

continued..

C24 (continued)

Spouse/partner disapproved and wanted me to stop — COL.43
Yes 1
No 2

Was no longer satisfied with its effects — COL.44
Yes 1
No 2

Was getting into trouble with the police — COL.45
Yes 1
No 2

Was in prison or hospital and could not get any — COL.46
Yes 1
No 2

Was no longer the 'in' (fashionable) drug — COL.47
Yes 1
No 2

No longer wanted or needed to use any drugs — COL.48
Yes 1
No 2

Reduced availability on streets ie. couldn't get any — COL.49
Yes 1
No 2

Other reasons (please specify) — COL.50

.....

[CODE ACCORDING TO WHETHER]
Financial 1
Legal 2
Medical 3
Social 4
Psychological 5

C25 How often do you try to cut down or stop taking this drug? — COL.51
Have never tried to cut down or stop 0
Not very often 1
Quite often 2
Frequently 3
Always trying to cut down or stop 4

C26 Why do you continue to use this drug? — COL.52
Because enjoy/like it 1
Because am addicted to it 2
Don't see it as a problem 3
Other (please specify) 4

.....

Don't know why 5

C27 Have any of the following happened to you as a result of you using this drug?

a) Rows with family — COL.53
Yes 1
No 2

continued..

C27 (continued)

b) Rows with non-user friends — COL.54
Yes 1
No 2

c) Rows with spouse/girl/boyfriend — COL.55
Yes 1
No 2

d) Split up with spouse/girl/boyfriend — COL.56
Yes 1
No 2

e) Health problems (please specify) — COL.57
Yes 1
..... No 2

f) Money problems — COL.58
Yes 1
No 2

g) Problems at work — COL.59
Yes 1
No 2

h) Lost a job or jobs — COL.60
Yes 1
No 2

i) Been banned from any premises — COL.61
Yes 1
No 2

j) Been in trouble with the police — COL.62
Yes 1
No 2

k) Been to prison/young offenders/remand — COL.63
Yes 1
No 2

l) Been involved in violence/fights — COL.64
Yes 1
No 2

m) Other (please specify) — COL.65
Financial 1
..... Legal 2
Medical 3
[CODE ACCORDING TO WHETHER] Social 4
Psychological 5

C28 Can you think of anything that would make you consider stopping your use of this drug?

[RECORD AND CODE ACCORDING TO WHETHER] — COL.66
No reason 0
Medical reason 1
Social reason 2
Financial reason 3
Legal reason 4
Other (please specify) 5

.....

Combination of reasons 6
(Please specify which

.....

.....)

C29 If someone you knew was thinking of trying this drug, what would be your advice to them? (RECORD AND NOTE WHETHER 1 - 4).

		COL.67
.....	Negative	1
	Neutral	2
.....	Positive	3
	Don't know	4

C30 What proportion of your friends use this drug?

	COL.68
None	0
1-5%	1
6-24%	2
25-49%	3
50-74%	4
More than 75%	5
~~Don't know~~	6

Record C) do mail

C31 Do any other members of your family use this drug regularly? (i.e. at least once a month)

	COL.69
Yes	1
No	2
Don't know	3

C32 Do you think that this is a drug which you will always use?

	COL.70
Yes, definitely	1
Yes, maybe	2
No, definitely	3
No, maybe not	4

Record 3=4 423

C33 If yes, how often do you think you will use it?

	COL.71
Daily	1
5 or 6 times a week	2
3 or 4 times a week	3
1 or 2 times a week	4
Several times a month	5
Occasionally	6
Don't know	7

C34 Does everyone in your family know you take this drug?

	COL.72
Yes	1
No	2
Don't know	3

IF YES GO TO C37

C35 Who doesn't know?

	COL.73
Mother	1
Father	2
A sister	3
A brother	4
Spouse/girl/boyfriend	5
Child(ren)	6
More than one of above	7

C36 Why don't they know/why haven't you told them?

	COL.74
Would upset/hurt them	1
Would get me into trouble	2
Don't know how they would react	3
Other (please specify)	4
.....	
Don't know why not	5

C37 Do you consider yourself to be addicted to this drug?

	COL.75
Yes	1
No	2
Unsure	3

IF NO GO TO C39

C38 In what way do you think you are addicted? [RECORD AND NOTE WHETHER]

	COL.76
Physical	1
Psychological	2
Both	3
Don't know	4

C39 If you ever thought you were becoming addicted, what would you do?

	COL.77
Go and see a doctor	1
Try and stop on own	2
Keep taking it as usual	3
Other (please specify)	4
.....	
Don't know	5

FOR OFFICE USE ONLY

	COLS. 1 2 3	4	5 6
RESPONDENT CODE	[ ][ ][ ]		
WAVE NUMBER TWO		[ ]	
CARD NUMBER NINE			[0][9]

AIDS

As you are probably aware, there has been a lot of publicity about AIDS, so I would like to ask you just a few questions about this.

B23 Have you ever injected drugs? COL.7

Yes	1
No	2

IF NO, GO TO B52

B24 When did you last inject drugs? COL.8

Today	1
In last month	2
1-6 months ago	3
7-12 months ago	4
1-3 years ago	5
3-5 years ago	6
6-10 years ago	7
More than 10 years ago	8

B25 How long have/had you been injecting for? COL.9

Less than 6 months	1
Between 6 months and 12 months	2
Between 13 months and 36 months	3
Between 37 months and 60 months	4
More than 5 years	5

B26 Have you ever borrowed "works" (needles, syringes)? COL.10

Yes	1
No	2

IF NO, GO TO B 31.

B27 Have you ever borrowed 'works' from

		COL.
Lover	Yes	11: 1
	No	2
Friends	Yes	12: 1
	No	2
Strangers	Yes	13: 1
	No	2

B28 How often do you borrow "works"? COL.14

Mostly every day	1
Couple of times a week	2
Several times a month	3
Very rarely	4
Only ever a few times	5

B29 Do you boil/bleach/use washing up liquid before using borrowed 'works'? COL.15

Always	1
Occasionally	2
Never	3

B30 When was the last time you borrowed 'works'? COL.16

Earlier today	1
Yesterday	2
2-7 days ago	3
8-15 days ago	4
16-30 days ago	5
31-60 days ago	6
61-180 days ago	7
181-365 days ago	8
More than a year ago	9

B31 Have you ever lent your 'works' (needles, syringes) to other people? COL.17

Yes	1
No	2

B32 Who do you lend 'works' to?

		COL.
Lover	Yes	18: 1
	No	2
Friends	Yes	19: 1
	No	2
Strangers	Yes	20: 1
	No	2

B33 How often do you lend people your 'works'? COL.21

Mostly every day	1
Couple of times a week	2
Several times a month	3
Very rarely	4
Only ever a few times	5

B34 Do you ask people to return your 'works' to you once they have used them? COL.22

Always	1
Occasionally	2
Never	3

B35 Do you re-use 'works' which you have lent to others? COL.23

Always	1
Occasionally	2
Never	3

B36 Do you boil/bleach/use washing up liquid on returned 'works' before you re-use them? COL.24

Always	1
Occasionally	2
Never	3

B37 As far as you know do the people you lend 'works' to or borrow 'works' from, lend to or borrow from other people? COL.25

Yes	1
No	2
Don't know	3

B38 Would you or do you lend 'works' to someone known to be HIV antibody positive? COL.26

Yes	1
No	2
Don't know	3

B39 Would you or do you share with someone known to be HIV antibody positive? COL.27

Yes	1
No	2
Maybe	3

B40 Have you ever shared 'works' (i.e. borrowed or lent out) in the following towns?

Edinburgh	- Yes	COL.28: 1
	No	2
Glasgow	- Yes	COL.29: 1
	No	2
Dundee	- Yes	COL.30: 1
	No	2

continued ...

Aberdeen	- Yes	COL.31: 1
	No	2
Ayr region	- Yes	COL.32: 1
	No	2
London	- Yes	COL.33: 1
	No	2
Liverpool	- Yes	COL.34: 1
	No	2
Other area	- Yes	COL.35: 1
	No	2

(If 'Yes' please specify .....)

B41 Have you reduced the number of times you borrow because of the risks of AIDS? COL.36

Yes	1
No	2

B42 Have you reduced the number of times you lend 'works'? COL.37

Yes	1
No	2

B43 Have you reduced the number of times you re-use returned 'works'? COL.38

Yes	1
No	2

B44 Have you reduced the number of people with whom you either borrow from or lend 'works' to? COL.39

Yes	1
No	2

B45 Have you used any of the needle exchange schemes? COL.40

Yes	1
No	2

IF NO, GO TO B48

B46 Which one(s) have you used?

		COL.41
a) Edinburgh formal exchange	Yes	1
	No	2
		COL.42
b) Edinburgh informal (Drug Prevention Group)	Yes	1
	No	2
		COL.43
c) Glasgow exchange	Yes	1
	No	2
		COL.44
d) Pharmacy exchange (If so specify where	Yes	1
	No	2

.....

B47 How often do you use this/these exchanges? COL.45

Several times a week	1
Once a week	2
Once or twice a month	3
Rarely	4

B48 Do you intend to use any such schemes in the future? COL.46

Yes	1
No	2
Don't know	3

IF YES GO TO B50.

B49 Why won't you use such schemes in the future? COL.47

Can get syringes elsewhere	1
Are not conveniently located	2
Don't like going to them (please specify)	3
Other (please specify)	4

.....

.....

B50 Where else do you acquire injecting equipment? COL.48

From drug dealer	1
From G.P.	2
Buy at pharmacists	3
Get from friends	4
Other (Please specify)	5

.....

having made a formalised agreement with your G.P.? COL.49

Yes	1
No	2
Unsure	3

B52 How much do you worry about getting AIDS? COL.50

A great deal	1
Quite a lot	2
A little bit	3
Not at all	4

B53 How likely do you think it is that you will get AIDS? COL.51

Very likely	1
Quite likely	2
Hardly likely	3
Most unlikely	4
Don't know	5

B54 Why do you think that? COL.52

Because have injected drugs	1
Because have injected and shared syringes	2
Because have never injected	3
Because have had 'unprotected' sex	4
Because have had several sexual partners	5
Because have neither injected nor had several sexual partners	6
Because have had sex with someone who has injected drugs	7
Because have had sex with someone who is HIV positive	8
Other (please specify)	9

B55 Have you been tested for HIV antibodies? COL.53

Yes, Negative result	1
Yes, Positive result	2
Won't say a) if tested	3
b) if positive	4
Doesn't have result yet	5
Never tested	6

B56 When was that? COL.54

Within the last month	1
31 days to 6 months ago	2
181 days to a year ago	3
More than a year ago (Record the year .....)	4

B57 Why have you not been tested? COL.55

No reason to be tested	1
Don't want to know result	2
Don't know where to get test	3
Other (please specify)	4

.....

UNLESS ALREADY POSITIVE ASK:

B58 Do you think you might be infected with the HIV virus? COL.56

Yes	1
No	2
Don't know	3
Won't say	4

IF ALREADY POSITIVE, ASK:

B59 Do you think you might have infected anyone else? COL.57

Yes	1
No	2
Don't know	3
Won't say	4

IF 'YES' OR 'DON'T KNOW' ASK:

B60 Would you have infected other people through COL.58

a) sexual behaviour	1
b) drug use	2
c) either/both	3
d) other (please specify)	4

.....

B61 Have you changed your drug taking behaviour because of AIDS? COL.59

Yes	1
No	2

IF NO GO TO B63.

B62 What have you changed? COL.60

Don't inject drugs any more	1
Inject but never lend syringes	2
Inject but never borrow syringes	3
Inject but reduced lending/borrowing	4
Always boil/bleach first	5
Other (please specify)	6

.....

B63 Are you 'gay', 'straight' or bisexual? COL.61

Gay	1
Straight	2
Bisexual	3
Won't say	4

B64 Have you changed your sexual behaviour because of AIDS/HIV? COL.62

Yes	1
No	2

IF NO GO TO B67

B65 What aspects of your sexual behaviour practices have you changed? (PROMPT using condoms, etc). COL.63

Use condoms more often	1
Use nonoxynol 9 condoms more often	2
Always use condoms	3
Use spermicides more often	4
Always use spermicides now	5
Don't have anal intercourse now	6
Don't have vaginal intercourse now	7
No longer have any kind of sexual intercourse	8
Other (please specify)	9

.....

B66 Have you adopted these changes with

a) casual partners	Yes	COL.64 1
	No	2
b) regular partners	Yes	COL.65 1
	No	2

B67 Have you made any changes with regards to your sexual partners?

Reduced number of partners	Yes	COL.66 1
	No	2
Only have one partner now	Yes	COL.67 1
	No	2
Other change (please (specify)	Yes	COL.68 1
	No	2

.....

B68 Have you ever asked partners whether or not they are HIV positive? COL.69

Yes	1
No	2
Won't say	3

B69 Do you intend to ask future partners whether or not they are HIV positive? COL.70

Yes	1
No	2
Unsure	3

B70 If you have not changed your sexual behaviour, do you intend to in the future? — COL.71

Yes	1
No	2
Unsure	3

B71 Is there any reason why you have not changed your sexual behaviour to date? — COL.72

Partner won't practice non-penetrative sex	1
Partner won't use condoms	2
Am a virgin	3
Other (please specify)	4

.....

POSITIVES ONLY

B72 Have you told your sexual partner that you have been exposed to the virus? — COL.73

Yes	1
No	2

IF NO, GO TO B74

B73 What was his/her reaction? — COL.74

Supportive	1
Unsupportive	2
Other (please specify)	3

.....

B74 Have you received any medication for HIV infection such as AZT? — COL.75

Yes	1
No	2
Won't say	3

B75 Have you undergone any in-patient treatment as a result of HIV infection? — COL.76

Yes	1
No	2
Won't say	3

B76 Are you aware of developing symptoms of AIDS-*related illnesses?* — COL.77

Yes	1
No	2
Unsure	3
Won't say	4

ALL SUBJECTS

B77 Do you know anybody who is HIV positive? — COL.78

Yes	1
No	2
Don't think so	3

IF NO, GO TO B82

B78 As far as you know, how were they exposed to the virus? — COL.79

Sexual behaviour	1
Drug use/sharing behaviour	2
An operation or blood transfusion	3
Other (please specify)	4

.....

Don't know 5

OFFICE USE ONLY — COLS.

RESPONDENT CODE	1 2 3	[ ][ ][ ]
WAVE NUMBER	4	[2]
CARD NUMBER TEN	5 6	[1] [0]

B79 Do you know anyone with symptoms of AIDS/ARC related illnesses? — COL.7

Yes	1
No	2
Unsure	3
Won't say	4

B80 Do you know anyone who has died as a result of an AIDS/ARC related illness? — COL.8

Yes	1
No	2
Unsure	3
Won't say	4

B81 How many people?

	COL.9
One	1
2-5	2
6-12	3
More than 12	4

B82 In your opinion, how effective do you think all the media (i.e. TV, press, radio, government backed campaigns) publicity about AIDS has been in making drug users revise :

		COL.10
a) their drug use	Very effective	1
	Quite effective	2
	Not effective at all	3
	Don't know	4
		COL.11
b) their sexual behaviour	Very effective	1
	Quite effective	2
	Not effective at all	3
	Don't know	4

B83 In your opinion how effective do you think all the media publicity about AIDS has been in making non-drug users revise their sexual behaviour?

	COL.12
Very effective	1
Quite effective	2
Not effective at all	3
Don't know	4

OFFICE USE ONLY

N.B. CARD TEN CONTINUES IN NEXT SECTION (TREATMENT AGENCIES).

TREATMENT/ADVICE AGENCIES (CARD TEN Continued)

E1 Do you know of any places where you can go for advice or help with drug/HIV problems?

		COL.13
Yes		1
No		2

IF NO, GO TO *E19*.

E2 Which of the following do you know?

		COL.
1) SHADA (Support, Help and Advice on on Drug Addiction), Edinburgh.	Yes	14 1
	No	2
2) Leith Group, Edinburgh.	Yes	15 1
	No	2
3) W.E.S.T. (Wester Hailes Support Team)	Yes	16 1
	No	2
4) Simpson House, Edinburgh	Yes	17 1
	No	2
5) Craigmillar Drugs Project	Yes	18 1
	No	2
6) Safe Support Group (Father Tom)	Yes	19 1
	No	2
7) Drug Prevention Group, Edinburgh	Yes	20 1
	No	2
8) Gateway Exchange, Fighting Back, Edinburgh.	Yes	21 1
	No	2
9) Spectrum House, Haddington	Yes	22 1
	No	2
10) Muirhouse and Pilton Drugs Group	Yes	23 1
	No	2
11) Brenda House Rehabilitation Centre	Yes	24 1
	No	2
12) Other (please specify)	Yes	25 1
	No	2
.....		

E3 Can you remember where/from whom, you heard about these places? — COL.26

From friends	1
From local press	2
From G.P.	3
Other (please specify)	4

.....

E4 Have you ever been to any of these places due to your own drug use? — COL.27

Yes	1
No	2

IF NO GO TO E14

E5 How often do you go to these places? — COL.28

Only been once	1
Every week day	2
2-4 times a week	3
Once a week	4
Several times a month	5
Less than monthly	6

E6 In the main, what kind of service provision are you looking for? — COL.29

Information only	1
Information and support	2
Advice/counseling	3
Informal meetings with other 'users'	4
Food and shelter	5
Other (please specify)	6

.....

E7 If information is what you are looking for is it mainly information regarding — COL.30

Legal problems	1
Financial problems	2
Health problems (e.g. HIV concern, drug use)	3
Family problems	4
Accommodation problems	5
Relationship problems	6
Other (please specify)	7

.....

E8 If advice/counselling/support is what you are looking for is it to do with - — COLS.31

Help to make drug user safer	1
Receiving injecting equipment	2
Help to reduce drug use	3
Help to stop drug use	4
Other (please specify)	5

.....

E9 Which place do you go to most often? Record name and assign number as in E2. — COL.32 & 33 [ ] [ ]

E10 In general, do you find this service — COL.34

Very helpful and supportive	1
Slightly helpful and supportive	2
Not helpful or supportive	3
Didn't get given any advice/information/support	4
Didn't go there for advice/information/support	5

E11 Is there any agency/place that you have been to, but would not go back to? — COL.35

Yes	1
No	2

E12 Which place is this? (Record name and assign no. as in E2) — COL.36,37 [ ] [ ]

E13 Why would you not go back to this place? — COL.38

Too formal for own liking	1
Too informal	2
Did not like the clientele/staff	3
Other reason (please specify)	4

.....

NOW GO TO E15

E14 Why have you not been to any of the places that you've heard of? COL.39

Do not feel that need to go/ ie have no problems	1
Do not like other people knowing my problems	2
Don't know anyone else who goes	3
Are not conveniently located	4
Scared of repercussions ie social work, probation, police finding out attend	5
Other (please specify)	6

.....

E15 Do any of your friends use any of these places? COL.40

Yes	1
No	2
Don't know	3

E16 Is there any agency/place that you have been advised not to go to? COL.41

Yes	1
No	2

E17 Which place/s? Record names and assign numbers as in E2. (Maximum of 3 places)

Place (a)	COL.42,43 [ ][ ]
Place (b)	COL.44,45 [ ][ ]
Place (c)	COL.46,47 [ ][ ]

E18 What reason was given for advising you not to go to these places? COL.48

No reason given	1
Told would not be helpful	2
Told would be too strict	3
Told would be too informal	4
Other (please specify)	5

.....

E19 In your opinion, which of the following would be helpful to drug users?

a) More information and advisory centres for users.	Yes	COL.49 1
	No	2
	Unsure	3
b) Would you use such a facility if there were more available?	Yes	COL.50 1
	No	2
	Unsure	3
c) More places where can get in-patient hospital treatment	Yes	COL.51 1
	No	2
	Unsure	3
d) Would you use such a facility if there were more available?	Yes	COL.52 1
	No	2
	Unsure	3
e) More needle exchange centres	Yes	COL.53 1
	No	2
	Unsure	3
f) Would you use such a facility if there were more available?	Yes	COL.54 1
	No	2
	Unsure	3
g) Having more long term residential rehabilitation centre	Yes	COL.55 1
	No	2
	Unsure	3
h) Would you use such a facility if there were more available?	Yes	COL.56 1
	No	2
	Unsure	3
i) Having more short-term crisis centres	Yes	COL.57 1
	No	2
	Unsure	3
j) Would you use such a facility if there were more available?	Yes	COL.58 1
	No	2
	Unsure	3
k) Having more self-help programs (i.e. groups of users/ex users)	Yes	COL.59 1
	No	2
	Unsure	3
l) Would use use such a facility if there were more available?	Yes	COL.60 1
	No	2
	Unsure	3

continued...

E19 (continued)

m) Less press coverage		COL.61
	Yes	1
	No	2
	Unsure	3
n) Better understanding from the public		COL.62
	Yes	1
	No	2
	Unsure	3
o) Better job prospects/ less unemployment for everyone		COL.63
	Yes	1
	No	2
	Unsure	3
p) Tougher police action against dealers of cannabis		COL.64
	Yes	1
	No	2
	Unsure	3
q) Tougher police action against users of cannabis		COL.65
	Yes	1
	No	2
	Unsure	3
r) Tougher police action against dealers of 'harder' drugs such as heroin cocaine, amphetamines		COL.66
	Yes	1
	No	2
	Unsure	3
s) Tougher police action against users of 'harder' drugs such as heroin cocaine, amphetamines		COL.67
	Yes	1
	No	2
	Unsure	3
t) More doctors who could prescribe/control use		COL.68
	Yes	1
	No	2
	Unsure	3
u) Legalizing or decriminalizing cannabis		COL.69
	Yes	1
	No	2
	Unsure	3
v) Other (please specify)		COL.70
	Yes	1
	No	2

.....

OFFICE USE ONLY - CARD ELEVEN

	COLS 1 2 3 / 4 / 5 6
RESPONDENT CODE	[ ] [ ] [ ]
WAVE NUMBER TWO	[2]
CARD NUMBER ELEVAN	[1] [1]

DRUG HISTORY - ALCOHOL F

F1 How old were you when you first tasted alcohol? COLS. 7 & 8 [ ] [ ]

F2 Do you ever drink alcohol now?

	COL. 9
Yes	1
No	2

IF NO, GO TO F8 AND CONTINUE UNTIL F24.

F3 When was the last time you had a drink containing alcohol?

	COL.10
Earlier today	1
Yesterday	2
Within the last week	3
Couple weeks ago	4
2 to 4 weeks ago	5
1-2 months ago	6
2-6 months ago	7
Between 6 months and a year	8
Over a year ago	9

F4 How much did you have? (pints, half pints, cans; glasses, bottles, single and double measures). .... COLS. 11 & 12 [ ] [ ]

COMPUTE UNITS = _____

FOR OFFICE USE ONLY: Use F4 as crosscheck with diary, if occasion was in the last week).

F5 I would like to ask about a typical (i.e. usual) occasion when you drink.

a) Who do you normally drink with?

	COL.13
Spouse/girl/boyfriend	1
Brother, sister or other relative	2
Male friend	3
Female friend	4
Group of friends	5
Mixed friends and acquaintances	6
Just acquaintances	7
Strangers	8
Alone	9
Other (please specify)	X

.....

b) How much do you usually have? ..... COLS. 14 & 15
(pints, half pints, cans glasses, bottles, single and double measures). ..... [ ][ ]

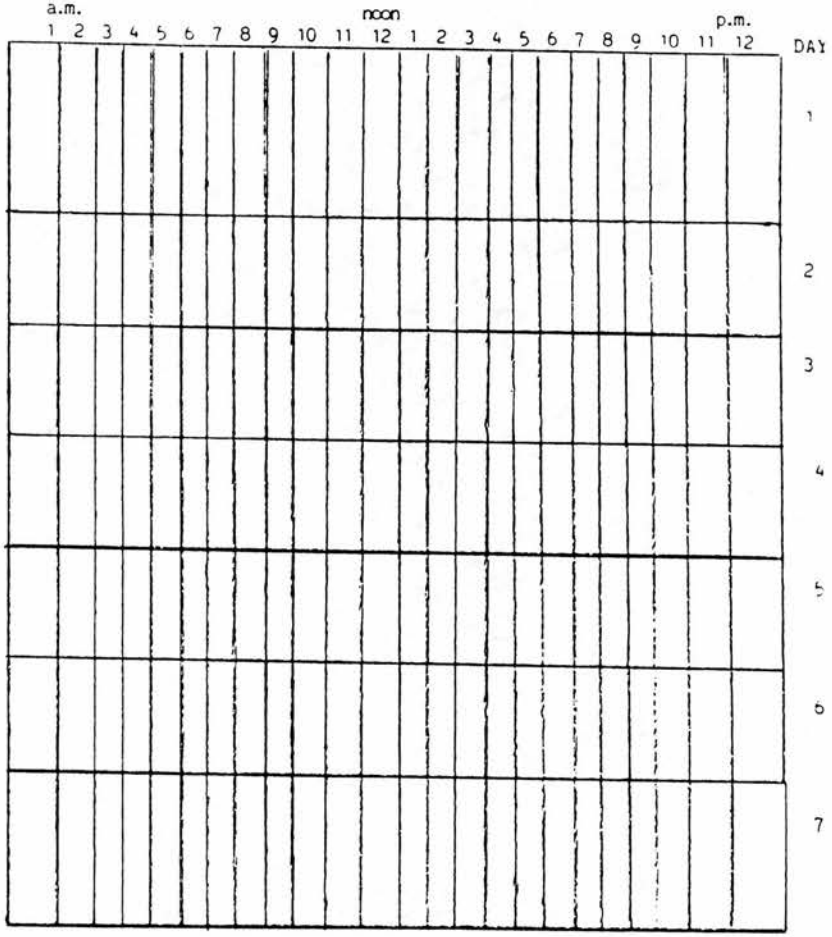
.....

COMPUTE UNITS = _____

c) What is your usual reason for drinking?

	COL.16
Like/enjoy it	1
To relax/relieve pressure	2
Out of habit	3
Forced/persuaded to	4
To be sociable with friends	5
If can't get usual drug	6
To relieve boredom	7
To avoid withdrawal	8
To potentiate (i.e. improve) the effect of another substance	9
Other (please specify)	X
.....	
Don't know why	Y

drink, what they were and how many you had. We will work back from yesterday until we have a 'diary' of your drinking for the past week.



Spirits:	1 single = 1 unit	
	1 bottle = 31 units	
Ordinary lager)	½ pint = 1 unit	
Ordinary beer)	1 can = 1½ units	
Export beer:	1 pint = 2½ units	
	1 can = 2 units	
	½ pint = 2 units	
Strong ale:	½ pint = 2 units	
Carlsberg Special:	½ pint = 2 units	
	1 can = 4 units	
Table Wine:	1 glass = 1 unit	
	1 bottle = 7½ units	
Fortified Wine, e.g. Sherry	1 glass = 1-2 units	

FOR OFFICE USE ONLY

1. WEEK'S TOTAL INTAKE (UNITS)
2. MAXIMUM DAILY INTAKE (UNITS)
3. MAXIMUM SESSION INTAKE (UNITS) (Gap of 2 hours terminates session)
4. MAX. RATE (UNITS PER HOUR)
5. NUMBER OF DRINKING DAYS

COLS.	
17 18	[ ][ ]
19 20	[ ][ ]
21 22	[ ][ ]
23 24	[ ][ ]
25	[ ]

F7 Would you say that was a typical week?

	COL.26
Yes, typical	1
More drinking than usual	2
Less drinking than usual	3
Don't have a typical week	4
Don't know	5

F8 How old were you when you started drinking regularly? (i.e. at least once a week). IF NEVER DRANK REGULARLY GO TO F17.

COLS. 27 & 28 [ ] [ ]

F9 What would you do if you couldn't get a drink for reasons such as you had no money?

	COL. 29
Do without	1
Borrow money from someone	2
Steal money from someone	3
Steal something and sell it	4
Steal the alcohol	5
Prostitution	6
Persuade someone to buy you it	7
Take something else (please specify)	8
.....	
Other (please specify)	9
.....	

F10 Since you began drinking regularly, or if you have stopped drinking, what is the longest time you have gone without a drink? (Remembering times when you may have been in hospital or prison)

	COL.30
Couple of days	1
3-7 days	2
8-14 days	3
15-30 days	4
31 days - 3 months	5
More than 3 months	6
Never gone without	0

F11 Did the following play a part in your stopping that time?

		COL.31
a) Couldn't afford it	Yes	1
	No	2
		COL.32
b) Health started to suffer	Yes	1
	No	2
		COL.33
c) Saw the damage it was doing to others	Yes	1
	No	2
		COL.34
d) Parents disapproved and wanted me to stop	Yes	1
	No	2
		COL.35
e) Friends disapproved and wanted me to stop	Yes	1
	No	2
		COL.36
f) Was getting into trouble with the police	Yes	1
	No	2
		COL.37
g) No longer wanted to experience the effects	Yes	1
	No	2
		COL.38
h) Was in prison or hospital and Couldn't get any	Yes	1
	No	2
		COL.39
i) Other reason (please specify)		
.....	Financial	1
	Legal	2
	Medical	3
	Social	4
	Psychological	5

F12 How often do you try to cut down or stop drinking?

	COL.40
Have never tried to cut down or stop	0
Not very often	1
Quite often	2
Frequently	3
Always trying to cut down or stop	4

IF CURRENTLY DRINK, ASK:

F13 Why do you continue to drink?

	COL.41
Because enjoy/like it	1
It's a habit	2
Don't see it as a problem	3
Other (please specify)	4
.....	
Don't know why	5

F14 Have any of the following happened to you because of your drinking?

1.	Rows with family	Yes	COL.42 1
		No	2
2.	Rows with friends	Yes	COL.43 1
		No	2
3.	Rows with spouse/girl/boyfriend	Yes	COL.44 1
		No	2
4.	Split up with spouse/girl/boyfriend	Yes	COL.45 1
		No	2
5.	Health problems (please specify)		COL.46
	.....	Yes	1
		No	2
	.....		
6.	Money problems	Yes	COL.47 1
		No	2
7.	Problems at work	Yes	COL.48 1
		No	2
8.	Lost a job(s)	Yes	COL.49 1
		No	2
9.	Been banned from any premises	Yes	COL.50 1
		No	2
10.	Been in trouble with the police	Yes	COL.51 1
		No	2
11.	Been to prison/young offenders/remand	Yes	COL.52 1
		No	2
12.	Been involved in violence/fights etc.	Yes	COL.53 1
		No	2
13.	Other (please specify)	Financial	COL.54 1
		Legal	2
	.....	Medical	3
		Social	4
	.....	Psychological	5
		Several of above	6

F15 Have you done, or would you do any of the following as a result of your drinking causing you problems

COL.55

Do nothing	0
Try to cut down on your own	1
Contact a doctor	2
Contact a social worker	3
Contact Alcoholics Anonymous	4
Contact some other agency	5
Talk to a friend	6
Other (please specify)	7

.....

.....

F16 Can you think of anything that would make you consider stopping drinking?
[RECORD AND CODE WHETHER

COL.56

No reason	0
Medical	1
Social	2
Financial	3
..... Legal	4
Other (please specify)	5
.....	
Combination of reasons (please specify which)	6
.....	
.....	

F17 If someone you knew was thinking of trying alcohol, what would be your advice to them? (RECORD AND NOTE WHETHER

COL.57

..... Negative	1
Neutral	2
..... Positive	3
Don't know	4

F18 What proportion of your friends drink alcohol?

COL.58

None	0
1-5%	1
6-24%	2
25-49%	3
50-74%	4
More than 75%	5

F19 Does anyone in your immediate family (i.e. parents, brothers, sisters or spouse) drink regularly?

	COL.59
Yes	1
No	2
Don't know	3

IF NO, OR DON'T KNOW GO TO F21.

F20 Does anyone in your immediate family have a drinking problem?

	COL.60
Yes	1
No	2
Don't know	3
WON'T SAY	4

F21 Have you ever drunk alcohol in combination with other drugs (legal or illegal including prescribed psychoactive substances)

	COL.61
Yes	1
No	2
Won't say	3

F22 Have you ever drunk alcohol to potentiate (i.e. to increase and/or improve) the effect of

a) Tranquillisers		COL.62
	Yes	1
	No	2
b) Opiates		COL.63
	Yes	1
	No	2
c) Amphetamines		COL.64
	Yes	1
	No	2
d) Other drug (please specify)		COL.65
	Yes	1
.....	No	2

F23 Do you think you will always drink alcohol?

	COL.66
Yes definitely	1
Yes maybe	2
No definitely	3
No maybe	4

F24 Do you consider yourself to be addicted to alcohol?

	COL.67
Yes	1
No	2
Don't know	3

IF NO GO TO F26

F25 In what way do you think you are addicted? [RECORD AND NOTE WHETHER]

	COL.68
Physical	1
Psychological	2
Both	3
Don't know	4

F25 What would you do if you ever thought you were becoming addicted to alcohol?

	COL.69
Try and cut down alone	1
Try to stop alone	2
Go and see a doctor	3
Go to an alcohol advice service	4
Contact Alcoholics Anonymous	5
Other (please specify)	6

.....

OFFICE USE ONLY - CARD TWELVE	COLS. 1 2 3
RESPONDENT CODE	[ ] [ ] [ ]
	4
WAVE NUMBER TWO	[2]
	5 6
CARD NUMBER	[1] [2]

DRUG HISTORY - TOBACCO 1 - G

G1 How old were you the first time you tried tobacco? ..... COLS. 7 & 8 [ ][ ]

G2 Do you ever smoke tobacco now? COL. 9

Yes	1
No	2

IF NO, GO TO G 5.

G3 When was the last time you had a cigarette? COL.10

Earlier today	1
Yesterday	2
Within the last week	3
Couple of weeks ago	4
2 to 4 weeks ago	5
1 to 2 months ago	6
2 to 6 months ago	7
Between 6 months and a year	8
Over a year ago	9

G4 I would now like to ask what is a typical occasion on which you smoke?

a) How many do you usually smoke per day ..... COLS.11,12 [ ][ ]

b) Normally, what is your reason for smoking? COL.13

Enjoyment	1
Relax/relieve pressure	2
Out of habit	3
Forced/persuaded to	4
To be sociable with friends	5
To relieve boredom	6
Other (please specify)	7
.....	
Don't know why	8
Combination of reasons (please specify which)	9
.....	

G5 How old were you when you started smoking tobacco regularly? (i.e. at least once a week). COLS 14 15 [ ][ ]

IF NEVER SMOKED REGULARLY GO TO G13

G6 Since you began smoking cigarettes regularly, or if you have stopped smoking, what is the longest time you have gone without a cigarette (remembering times when may have been in hospital or prison and couldn't smoke). COL.16

Couple of days	1
3 - 7 days	2
8-14 days	3
15-30 days	4
31 days - 3 months	5
More than 3 months	6
Never gone without	0

G7 Which of the following played a part in you not smoking that time?

Didn't have any money	Yes	COL.17 1
	No	2
Health started to suffer	Yes	COL.18 1
	No	2
Saw the damage it was doing to others	Yes	COL.19 1
	No	2
Parents disapproved and wanted me to stop	Yes	COL.20 1
	No	2
Friends disapproved and wanted me to stop	Yes	COL.21 1
	No	2
Partner/spouse disapproved and wanted me to stop	Yes	COL.22 1
	No	2

Other (please specify) COL.23

Medical	1
Social	2
Psychological	3
Legal	4

[CODE ACCORDING TO WHETHER]

G8 How often do you try to cut down or stop smoking? COL.24

Have never tried to cut down or stop	0
Not very often	1
Quite often	2
Frequently	3
Always trying to cut down or stop	4

G9 Have any of the following happened as a result of your smoking?

		COL.25
Rows with family	Yes	1
	No	2
		COL.26
Rows with non smoker friends	Yes	1
	No	2
		COL.27
Rows with spouse/girl/boyfriend	Yes	1
	No	2
		COL.28
Health problems (please specify)	Yes	1
.....	No	2
		COL.29
Other (please specify)	Yes	1
.....	No	2

G10 Can you think of anything that would make you consider stopping or cutting down your smoking? COL.30

[RECORD AND CODE WHETHER -

No reason	0
Medical	1
Social	2
Financial	3
Legal	4
Other (please specify)	5
.....	
Combination of reasons (specify which)	6
.....	

G11 If someone you knew was thinking of starting smoking, what would be your advice to them? (RECORD AND NOTE WHETHER NEGATIVE OR POSITIVE). COL.31

Negative	1
Neutral	2
..... Positive	3
Don't know	4

G12 What proportion of your friends smoke cigarettes? COL.32

None	0
1-5%	1
6-24%	2
25-49%	3
50-74%	4
More than 76%	5
Don't know	6

G13 Does anyone in your family smoke regularly? (i.e. at least once a week) COL.33

Yes	1
No	2
Don't know	3

G14 Do you think you will always smoke? COL.34

Yes definitely	1
Yes, maybe	2
No, definitely	3
No, maybe not	4

G15 Do you consider yourself to be addicted to tobacco? COL.35

Yes	1
No	2
Don't know	3

IF NO OR DON'T KNOW GO TO G17

G16 In what way do you think you are addicted? COL.36

[RECORD AND NOTE WHETHER -]

Physical	1
Psychological	2
..... Both	3
Don't know	4

G17 What would you do if you ever thought you were becoming addicted to tobacco? COL.37

Go and see a doctor	1
Try and stop on own	2
Carry on as usual	3
Other (please specify)	4
.....	

OFFICE USE ONLY - N.B. CARD SIX CONTINUED - Join to page 21.

Finally I would like to ask a few questions about crime and whether you have ever been involved in any :-

CRIMINAL HISTORY

H1 Have you ever been in trouble with the police? COL.24

Yes	1
No	2

IF NO, GO TO END OF INTERVIEW.

H2 When was the first time you were in trouble with the police - i.e. age in years. COLS. 25 26 [ ] [ ]

H3 Why was this? RECORD AND NOTE WHETHER: COL.27

Theft	1
Violence	2
Public order	3
Fraud	4
Other (please specify)	5
Drugs offence (Please specify)	6

H4 Have you ever been the subject of a supervision order under the children's hearing system?

a) for criminal behaviour COL.28

Yes	1
No	2

b) for other reasons COL.29

Yes	1
No	2

H5 How old were you at this time COLS 30 31 [ ] [ ]

H6 How long did the supervision order run for? COL.32

Under 6 months	1
7-12 months	2
13-24 months	3
25-36 months	4
Over 3 years	5
Can't remember	6

H7 Have you ever been sentenced from a court? COL.33

Yes	1
No	2
Won't say	3

H8 Have you ever been held in custody, either while waiting to go to court or after being sentenced? COL.34

Yes	1
No	2
Won't say	3

IF NO, GO TO H13

H9 When were you last in court on a criminal charge? Record date, month and year below

.....

a) What was that for? COL.35

Record date, month and year below .....

Theft	1
Violence	2
Public order	3
Fraud	4
Other (please specify)	5
Drug offence (please specify)	6

b) What happened? Were you given - COL.36

A Fine - Compensation order	1
Community service	2
Probation	3
Detention Centre	4
Young Offenders	5
Prison	6
Found not guilty	7
Admonished or acquitted	8
Other (please specify)	9

c) How long did you get for this? COL.37

Less than 3 months	1
3-6 months	2
7-12 months	3
13-24 months	4
Over 24 months	5

H10 If you have another previous sentence — COL.38

a) What was that for?

Record date, month and year below .....

Theft	1
Violence	2
Public order	3
Fraud	4
Other (please specify)	5
Drugs offence (please specify)	6

b) What kind of disposal did you receive? — COL.39

Fine - Compensation Order	1
Community service	2
Probation	3
Detention Centre	4
Young offenders	5
Prison	6
Found not guilty	7
Admonished/acquitted	8

c) How long did you get for this? — COL.40

Less than 3 months	1
3-6 months	2
7-12 months	3
13-24 months	4
Over 24 months	5

H11 If last two sentences were custodial, ask:

Have you ever been a) on probation — COL.41

b) under a community service order — COL.42

Yes	1
No	2

H12 In your opinion, what proportion of the crimes you have committed were after you had consumed alcohol? — COL.43

None	0
1-24%	1
25-49%	2
50-74%	3
More than 75%	4
Don't know	5

H13 In your opinion, what proportion of the crimes you have committed were after you had taken illicit drugs? — COL.44

None	0
1-24%	1
25-49%	2
50-74%	3
More than 75%	4
Don't know	5

H14 On average, how many days a month do you commit a criminal act (apart from taking drugs)? — COL.45

25-30 days	1
15-24 days	2
5-14 days	3
1-4 days	4
Less than once	5

H15 Do you commit different types of crimes when you have taken alcohol or drugs, and if so, in what way do they differ from when you are "straight"? — COL.46

More violent	1
More daring	2
More financial	3
More opportunistic	4
Less violent	5
Less daring	6
Less financial	7
Less opportunistic	8
Other difference (Please specify)	9
No difference	0

That is the end of the interview. Thank you very much for your time and help. I hope that you found it interesting too. Is there anything at all that you would like to ask about or comment on?

Finally, do remember that everything you have told me today is totally confidential and nothing shall be reported on in a way that could reveal your identity.

APPENDIX TWO : SUPPLEMENTARY TABLES

Table A : Misuse of Drugs Act (1971) : Offences and maximum penalties

Offence	*Mode of prosecution*	*Class A drug*	*Class B drug*	*Class C drug*	*General*
Production or being concerned in the production of a controlled drug.	(a) Summary (b) On Indictment	6 months or £2,000 or both. Life imprisonment or a fine, or both.	6 months or £2,000 or both. Life imprisonment or fine, or both.	3 months or £500 or both. 5 years or a fine, or both.	
Supplying or offering to supply a controlled drug or being concerned in the doing of either activity by another.	(a) Summary (b) On Indictment	6 months or £2,000 or both. Life imprisonment or a fine, or both.	6 months or £2,000 or both. 14 years or a fine, or both.	3 months or £500 or both. 5 years or a fine, or both.	
Having possession of a controlled drug.	(a) Summary (b) On Indictment	6 months or £2,000 or both. 7 years or a fine, or both.	3 months or £500 or both. 5 years or a fine, or both.	3 months or £200 or both. 2 years or a fine, or both.	
Having possession of a controlled drug with intent to supply it to another.	(a) Summary (b) On Indictment	6 months or £2,000 or both. Life imprisonment or a fine, or both.	6 months or £2,000 or both. 14 years or a fine, or both.	3 months or £500 or both. 5 years or a fine, or both.	
Cultivation of cannabis plant.	(a) Summary (b) On Indictment	—	—	—	6 months or £2,000 or both. 14 years or a fine, or both.
Being the occupier or concerned in the management of premises and permitting or suffering certain activities to take place there.	(a) Summary (b) On Indictment	6 months or £2,000 or both. 14 years or a fine, or both.	6 months or £2,000 or both. 14 years or a fine, or both.	3 months or £500 or both. 5 years or a fine, or both.	
Offences relating to opium.	(a) Summary (b) On Indictment	—	—	—	6 months or £2,000 or both. 14 years or a fine, or both.
	(a) Summary (b) On Indictment	—	—	—	6 months or £2,000 or both. 2 years or a fine, or both.
Contravention of direction prohibiting practitioner, etc, from possessing, supplying, etc. controlled drugs.	(a) Summary (b) On Indictment	6 months or £2,000 or both. 14 years or a fine, or both.	6 months or £2,000 or both. 14 years or a fine, or both.	3 months or £500 or both. 5 years or a fine, or both.	
Contravention of direction prohibiting practitioner, etc. from prescribing, supplying, etc. controlled drugs	(a) Summary (b) On Indictment	6 months or £2,000 or both. 14 years or a fine, or both.	6 months or £2,000 or both. 14 years or a fine, or both.	3 months or £500 or both. 5 years or a fine, or both.	
Failure to comply with notice requiring information relating to prescribing, supply, etc. of drugs.	Summary	—	—	—	£400
Giving false information in purported compliance with notice relating to prescribing, supply, etc. of drugs.	(a) Summary (b) On Indictment		—	—	6 months or £2,000 or both. 2 years or a fine, or both.

Table B : Sex differences in Mean Weekly Income

Income from	Male Mean	(n)	Female Mean	(n)	sig.
Wages	105	(40)	141	(11)	NS
Unemployment	31	(36)	36	(22)	$p<0.05$
Family allowance	18	(2)	18	(2)	NS
Other benefits	37	(7)	25	(7)	NS
Renting property	23	(3)	47	(3)	NS
Grants	60	(3)	53	(2)	NS
Financial gifts	10	(14)	21	(10)	NS
Interest (savings)	88	(4)	2	(1)	NS
Casual work	47	(14)	16	(4)	NS
Theft	125	(11)	168	(3)	NS
Fraud	83	(5)	40	(1)	NS
Drug dealing	114	(14)	31	(2)	NS
Borrowing	25	(24)	14	(13)	NS
Gambling	33	(6)	5	(1)	NS
Total Legitimate	91	(78)	93	(36)	NS
Total Illegitimate	113	(36)	86	(11)	NS
TOTAL INCOME	141	(79)	119	(36)	NS

Note: Formal loans and prostitution have been removed since only one resp reported incomes from these sources.

Table C : Sex Differences in Mean Weekly Expenditure

Expenditure on:	Male Mean	(n)	Female Mean	(n)	Sig.
Lodgings	21	(25)	13	(3)	NS
Rent/Mortgage	26	(32)	27	(16)	NS
Meals	24	(49)	22	(30)	NS
Snacks/junk food	8	(58)	7	(22)	NS
Debts	11	(40)	12	(22)	NS
Bills	15	(26)	12	(17)	NS
Household costs	4	(16)	5	(10)	NS
Clothes	15	(40)	14	(23)	NS
Alcohol	23	(66)	11	(27)	NS
Tobacco	10	(71)	10	(33)	NS
Illicit drugs	40	(70)	20	(27)	NS
Pets	4	(8)	5	(9)	NS
Gambling	11	(21)	2	(1)	NS
Hobbies	5	(34)	5	(15)	NS
Entertainment	4	(28)	6	(15)	NS
Travel	11	(63)	7	(30)	NS
Child Maintenance	33	(2)	20	(1)	NS
Total Legitimate	100	(79)	91	(36)	NS
Total Illegitimate	40	(71)	20	(27)	NS
Total Expenditure	136	(79)	107	(36)	NS

Table D : Sub-group Differences in Adverse Consequences Resulting from Alcohol Consumption at First Interview

Problems Report	Sub-Group One n	%	Sub-Group Two n	%	Sub-Group Three n	%	Sub-Group Four n	%
1. Arguments with family	15	(54)	13	(45)	16	(59)	10	(56)
2. Arguments with friends	9	(32)	17	(59)	17	(63)	11	(61)
3. Arguments with partner	11	(39)	20	(69)	13	(48)	12	(67)
4. Split up with partner	4	(14)	7	(24)	10	(37)	7	(3)
5. Health problems	2	(7)	4	(14)	7	(26)	7	(39)
6. Money problems	7	(25)	6	(21)	11	(41)	6	(33)
7. Problems at work	4	(14)	3	(10)	6	(22)	4	(22)
8. Lost a job	3	(11)	1	(3)	3	(11)	4	(22)
9. Been banned**	9	(32)	10	(34)	18	(67)	11	(61)
10. Trouble with police**	7	(25)	12	(41)	17	(63)	13	(72)
11. Imprisoned	1	(4)	2	(7)	7	(26)	7	(39)
12. Involved in violence*	12	(43)	15	(52)	21	(78)	15	(83)

** Chi squared (df = 3) $p < 0.01$.

Table E : Sub-group Differences in Adverse Consequences of Illicit Drug Use at Two Time Points

PROBLEM	WAVE ONE*				WAVE TWO**			
	1 (17)	2 (20)	3 (17)	4 (18)	1 (13)	2 (25)	3 (16)	4 (18)
Rows with family	3	5	11	12***	2	8	11	14***
Rows with friends	1	4	8	5 NV	0	4	5	9 NV
Rows with partner(s)	2	8	8	10*	1	5	9	14***
Split up with partner	0	3	6	5 NV	0	0	2	11 NV
Health problems	2	3	5	9 NV	2	4	4	14***
Money problems	0	5	6	9 NV	1	5	7	6 NV
Problems at work	0	2	5	1 NV	0	1	2	2 NV
Been sacked	0	1	2	2 NV	0	0	1	2 NV
Banned	0	6	10	7***	0	5	6	5 NV
Trouble with police	4	9	10	10	3	8	9	9
Imprisonment	0	2	3	7 NV	0	2	3	9 NV
Involved in violence	1	5	9	8**	0	6	5	7 NV

* Chi squared $p < 0.05$ (df = 3.)
** Chi squared $p < 0.02$ (df = 3.)
*** Chi squared $p < 0.01$ (df = 3.)
NV = not valid EF < 5